1897.

Borough of Portsmouth.

REPORT

ON THE

Health of Portsmouth

FOR THE YEAR 1897,

BY

A. MEARNS FRASER, M.B., D.P.H.,

Medical Officer of Health; Medical Officer of Health for the Port of Portsmouth; and Medical Officer to the Milton Infectious Diseases Hospital.

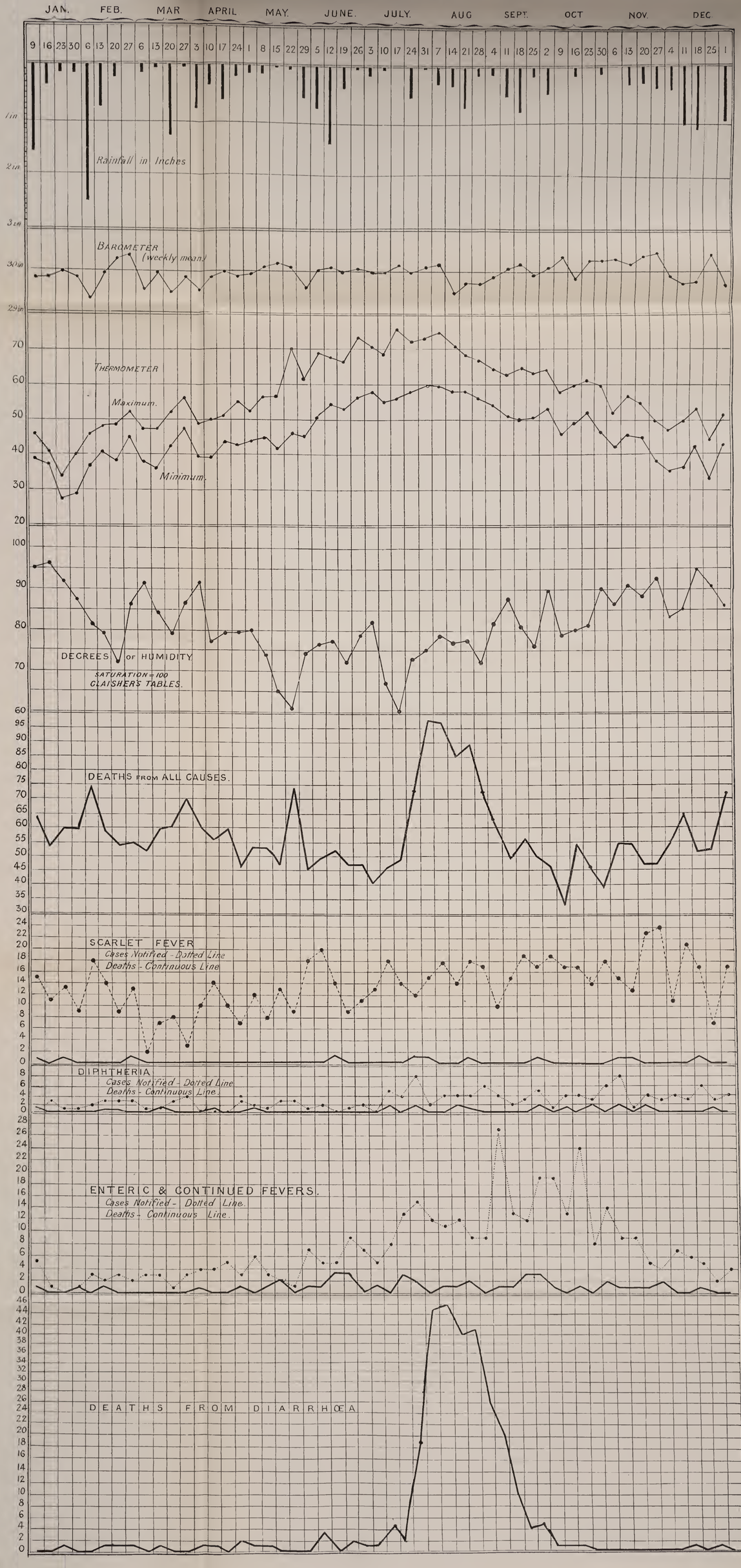
INCLUDING THE

Report of the Public Analyst:

J. MOORE MURRAY, M.Sc., F.C.S.

CHARPENTIER & CO., PORTSMOUTH.

METEOROLOGICAL AND DISEASE CHART FOR 1897.



ABSTRACT OF METEOROLOGICAL OBSERVATIONS made at Milton Hospital during the Year 1897

DATE. — Week ending.	Barometer reduced to Sea Level and 320 F. Mean 9 a.m.	TEMPERATURE. IN SHADE. Mean 9 a.m.	Mean Max.	Mean Min.	Mean of Max. and Min.	Mean Range	Highest Max.	Lowest Min.	IN SUN. Blk.bulb in vacuo Mean.	Bright b. in vacuo. Mean.	ON GRASS. Mean Min.	Lowest Min.	Mean of Earth below Ground. 1 ft.	4 ft.	Wet Bulb. Mean 9 a.m.	Humidity Mean, 9 a.m.	Total Sunshine registered by Jordan's Recorder H.	M.	Cloud. Mean Amount, 9 a.m.	WIND. Number of Days. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	RAINFALL. Total.	No. of Days 0.01 inch or more rainfall.	Greatest fall in 24 hours.	Date of Greatest Fall.
1897																														
Jan. 9...	29.825	42.64	46.07	39.3	42.685	6.77	49.0	34.0	67.7	52.0	36.21	31.5	42.0	45.36	41.70	95	3	...	9.4	...	2	...	1	2	2	...	...	1.65	6	0.54	Jan. 8
.. 16...	29.870	38.6	40.5	37.07	38.785	3.43	48.0	32.5	53.9	46.1	32.3	28.	41.6	45.5	37.80	96		25	8	...	3	...	...	...	1	...	3	0.36	4	0.22	,, 10
.. 23...	29.902	31.4	34.7	28.0	31.350	6.70	36.5	24.5	62.64	43.43	23.6	18	36.2	44.7	30.80	92	11	30	5	1	4	...	...	...	...	...	2	0.13	3	0.06	,, 22
.. 30...	29.826	34.07	40.3	29.86	35.080	10.44	48.0	24	66.8	50.8	25.07	19.5	33.4	43.1	33.60	57	17	35	6	...	1	...	...	...	...	...	6	0.195	4	0.17	,, 29
Feb. 6...	29.328	41.0	45.36	37.64	41.500	7.72	49.0	34	55.8	47.6	34.8	29.5	39.9	42.6	40.60	81	...	...	10	...	3	...	...	...	...	1	3	2.50	7	0.84	Feb. 4
.. 13...	29.979	43.1	48.5	40.3	44.400	8.20	54.0	36	64.07	51.81	36.2	26.5	42.8	44.8	42.20	79	2	20	8.1	1	1	...	...	...	2	...	3	0.775	6	0.295	,, 11
.. 20...	30.328	44.8	48.93	38.86	43.895	10.07	54.0	31	80.6	57.8	33.3	22	43.07	44.2	41.80	72	15	...	7	...	1	...	...	...	3	...	3	0.265	4	0.20	,, 19
.. 27...	30.450	47.1	52.07	45.0	48.535	7.07	56.0	43	85.0	63.3	40.4	39	45.4	44.8	45.40	86	13	15	7	...	...	...	1	...	3	...	3	...	...	...	...
Mar. 6...	29.543	42.5	47.21	37.86	42.535	9.35	50.0	35	96.6	63.7	31.8	26	43.7	45.8	41.20	92	23	10	8	...	1	...	...	..	1	...	5	1.89	7	0.94	Mar. 2
.. 13...	29.927	41.64	47.43	36.14	41.785	11.29	50.0	30	99.5	65.4	27.6	17	72.0	45.07	39.50	84	36	25	8	...	1	...	2	...	1	...	3	0.95	5	0.53	,, 11
.. 20...	29.477	46.9	52.0	42.5	47.250	9.50	56.5	38	102.3	69.5	35.0	26	45.1	45.1	44.60	79	23	35	7	...	...	...	3	...	4	...	...	1.335	5	0.48	,, 14
.. 27...	29.836	50.0	55.5	47.0	51.250	8.50	58.0	44	103.3	71.8	44.0	37	49.3	46.5	48.07	86	29	20	7.3	...	...	...	...	...	6	...	1	0.085	3	0.04	,, 27
April 3...	29.454	43.2	48.8	39.3	44.050	9.50	54.0	33	99.8	65.8	34.0	26	46.8	47.4	42.30	92	26	50	7	...	1	...	2	...	2	...	2	0.83	5	0.56	,, 31
.. 10...	29.822	43.8	49.5	38.0	43.750	11.50	53.0	31	109.8	70.6	31.9	18	45.7	47.1	41.10	77	38	15	7	...	3	...	1	...	3	...	...	0.355	4	0.215	April 6
.. 17...	29.958	48.3	51.79	43.21	47.500	8.58	55.0	34	102.3	67.0	38.3	35	48.3	47.2	45.90	79	22	55	9	...	1	...	1	...	3	...	2	0.65	6	0.215	,, 16
.. 24...	29.863	48.1	54.0	42.4	48.200	11.60	57.0	39	116.5	76.3	36.1	28	49.5	47.4	45.07	79	45	...	8	...	2	...	...	...	5	...	...	0.24	2	0.20	,, 19
May 1...	29.907	53.1	52.21	43.9	48.055	8.31	65.5	39	122.07	81.07	37.0	30	52.07	48.9	50.30	80	37	20	3.1	...	3	...	2	...	1	...	1	0.13	1	0.13	,, 30
.. 8...	30.078	51.2	56.00	44.0	50.000	12.00	58.0	39	155.0	75.7	36.7	28	52.8	50.0	47.40	74	40	20	5	2	...	1	...	...	1	...	3	0.19	3	0.12	May 4
.. 15...	30.148	50.3	56.07	41.3	48.685	14.77	61.0	34	120.7	79.1	33.4	25	52.5	50.8	44.60	65	53	20	4	...	2	...	...	...	1	...	4	0.02	1	0.02	,, 10
.. 22...	30.049	57.8	70.0	45.9	57.950	24.10	75.0	39	127.3	89.3	39.5	32	55.6	51.3	50.70	61	74	...	3	...	7	...	...	...	...	...	...	0.05	1	0.05	,, 18
.. 29...	29.678	54.2	61.21	45.36	53.285	15.85	67.0	39	121.07	82.07	38.21	32	56.71	52.5	50.60	74	38	20	6.6	...	2	...	...	...	2	...	3	0.56	3	0.46	,, 29
June 5...	30.002	58.2	68.3	50.8	59.550	17.50	75.0	39	127.9	88.0	43.8	33	58.5	53.2	54.30	76	39	...	7	...	1	...	...	...	1	4	1	0.77	5	0.285	,, 31
.. 12...	30.095	62.0	67.4	53.3	60.350	14.10	74.0	50	125.0	87.8	49.07	41	62.8	55.3	58.20	77	42	40	5	...	1	...	1	...	2	3	...	1.45	3	0.85	June 8
.. 19...	29.986	61.2	65.5	52.6	59.050	12.90	72.0	49	127.7	87.1	45.1	38	64.1	56.9	55.80	72	58	10	6	...	...	...	...	1	3	...	3	0.422	4	0.27	,, 19
.. 26...	30.021	62.9	72.07	55.3	63.685	16.77	80.5	50	124.3	89.7	49.5	41	64.0	59.0	59.70	79	30	40	7	...	...	...	...	...	1	...	6	0.55	1	0.55	,, 26
July 3...	29.981	65.6	70.14	57.5	63.820	12.64	78.0	54	126.0	88.93	50.0	46	66.86	58.8	61.80	82	48	30	7	...	...	...	...	2	1	1	3	0.17	2	0.12	,, 28
.. 10...	29.991	62.07	67.5	54.43	60.965	13.07	69.0	47	133.0	90.8	45.5	32.5	64.7	59.8	56.40	67	52	45	7	...	...	...	...	1	5	...	1	0.06	1	0.06	July 5
.. 17...	30.104	69.07	76.1	55.07	65.585	21.03	86.5	52	131.3	96.6	45.4	41	68.8	60.3	60.60	60	71	...	3	...	...	...	...	...	...	...	7	...	...	...	...
.. 24...	29.909	65.8	70.21	57.7	63.955	12.51	72.5	56	129.6	91.3	49.3	43.5	66.8	61.1	65.80	73	38	45	6.7	...	...	...	...	1	3	...	3	0.56	2	0.49	.. 21
.. 31...	30.094	67.4	72.6	59.5	66.050	13.10	81.0	57	132.1	93.5	50.9	46	67.8	61.9	61.80	75	49	50	6	...	...	...	1	...	3	...	3	0.01	1	0.01	.. 26
Aug. 7...	30.129	65.7	74.5	58.6	66.550	15.90	80.5	54.5	131.5	94.3	49.8	44	69.07	62.2	60.80	78	58	50	5	...	1	...	...	...	6	...	...	0.31	1	0.31	Aug. 7
.. 14...	29.476	65.0	70.1	57.3	63.700	12.80	74.5	52	130.21	91.71	48·8	41	66.9	62.9	60.80	76	46	20	6	...	...	...	1	...	5	...	1	0.37	2	0.32	,, 8
.. 21...	29.793	63.1	67.4	57.8	62.600	9.60	70.0	54	123.0	86.6	51.2	47	64.3	62.6	59.10	77	41	10	6	...	...	...	1	...	6	...	...	0.72	7	0.22	.. 15
.. 28...	29.766	61.9	66.31	55.21	60.760	11.10	68.5	51	125.6	87.2	50.1	43.2	63.1	62.0	57.10	72	31	20	6	...	...	...	2	...	2	...	3	1.595	4	1.135	.. 26
Sept. 4...	29.882	59.7	63.7	53.6	58.650	10.10	66.5	45.3	120.9	83.7	50.1	46.5	61.9	61.6	55.04	82	35	35	8	...	...	...	...	...	5	...	2	1.63	6	0.50	Sept. 1
.. 11...	30.070	55.64	62.6	50.8	56.700	11.80	66.0	43.2	110.07	82.6	38.93	38	58.64	60.64	53.36	87	28	20	7	...	2	...	2	...	3	...	...	0.50	1	0.50	,, 5
.. 18...	30.192	57.21	64.04	50.0	57.020	14.04	67.5	46.5	120.2	82.9	42.43	37	58.9	59.7	54.07	81	35	15	6	1	3	...	...	...	...	...	3	0.80	2	0.70	,, 17
.. 25...	29.927	56.8	63.26	50.9	57.080	12.36	68.0	41	118.3	82.02	45.2	35.5	57.1	58.6	53.07	76	38	...	6	...	...	...	...	...	7	...	...	0.178	5	0.048	,, 24
Oct. 2...	30.058	57.4	64.2	52.5	58.350	11.70	66.0	47.5	111.5	79.8	44.5	39.	59.2	58.5	55.70	89	36	...	6	...	1	...	...	...	5	...	1	0.461	5	0.292	,, 29
.. 9...	30.340	51.6	57.8	45.2	51.500	12.60	60.5	36.5	113.7	77.0	32.4	29	54.2	58.1	47.07	78	35	...	5	...	3	...	1	...	...	...	3	...	...	...	...
.. 16...	29.860	54.07	59.3	48.07	53.685	11.23	63.0	39	97.6	67.1	41.2	28.5	53.5	56.5	51.10	80	18	55	8	...	...	...	1	...	6	...	...	0.185	2	0.155	Oct. 15
.. 23...	30.289	54.8	61.3	52.07	56.685	9.23	67.0	45	108.3	77.2	44.0	37.5	55.0	56.1	52.60	81	30	40	6	...	1	...	1	...	4	...	1	...	...	...	...
.. 30...	30.215	52.64	59.37	46.86	53.115	12.51	63.0	43	100.1	73.07	40.3	37.	52.4	55.67	51.50	90	33	40	4	...	3	...	...	...	...	...	4	0.115	2	0.105	,, 25
Nov. 6...	30.267	45.93	51.8	41.97	46.885	9.83	59.5	39	88.2	63.96	36.2	28	49.1	54.7	44.00	86	28	25	5.7	...	4	...	3	...	...	...	...	...	...	...	...
.. 13...	30.133	50.03	56.1	45.21	50.655	10.89	59.0	38	82.0	64.07	38.0	30	50.1	53.5	49.40	91	6	40	9	...	2	...	...	...	3	...	2	0.303	3	0.255	Nov. 7
.. 20...	30.355	49.8	54.7	45.2	49.950	9.50	59.5	35.5	83.4	62.83	38.8	31	50.2	53.2	48.00	88	9	10	8	...	1	...	...	...	5	...	1	0.293	2	0.215	,, 14
.. 27...	30.441	44.3	59.26	38.64	43.950	10.62	53.0	32	63.26	52.4	35.1	25.5	47.2	52.66	43.20	92	5	10	9.3	...	2	1	...	...	1	1	2	0.40	3	0.30	,, 27
Dec. 4...	29.864	40.5	47.64	36.1	41.870	11.54	53.0	26.5	75.96	55.64	27.21	21	43.4	51.47	37.93	83	19	25	6.4	...	1	...	...	...	1	1	4	0.405	4	0.29	,, 30
.. 11...	29.729	41.96	49.0	36.9	42.950	12.10	54.0	30	72.0	55.4	31.7	26.5	42.4	49.4	40.30	85	9	25	9.3	...	...	...	...	...	3	...	4	1.04	6	0.55	Dec. 7
.. 18...	29.792	47.36	52.8	41.6	47.200	11.20	54.5	31	76.9	59.64	34.6	22	44.3	48.7	46.14	95	10	30	9.3	...	1	...	1	...	4	...	1	1.12	5	0.56	,, 13
.. 25...	30.440	36.53	43.03	33.86	38.445	9.17	46.0	29	76.2	53.5	27.64	22	40.2	48.46	35.40	91	24	55	3.4	...	5	2	...	...	...	...	...	...	...	...	...
Jan. 1...	29.681	46.4	50.24	42.14	46.190	8.10	53.0	32	72.5	56.6	37.0	24	42.7	47.04	44.70	86	4	50	9.3	...	1	...	...	...	6	...	...	0.905	7	0.46	,, 29
Sums ...	1558.14	2686.36	2976.42	2379.63	2678.03	596.79	3210.5	2078.5	5371.05	3762.95	2039.17	1669.2	2762.62	2641.67	2540.02	4216	1568	50	346.9	5	71	4	32	4	132	10	106	28.484	166	1.135	Aug. 26
Weekly Mean	29.96	51.66	57.23	45.76	51.50	11.47	62.12	39·97	103.29	72.36	39.21	32.10	53.12	50.80	48.34	81.1	30	16	6.6									0.547	3.1		

CHARPENTIER & CO., PORTSMOUTH.

Drainage and Sanitary Committee.

(1896-7)

THE WORSHIPFUL THE MAYOR, GEO. E. COUZENS, ESQ., J.P.

Chairman—

ALDERMAN SIR WILLIAM PINK, K.L.H,, J.P.

Vice=Chairman—

ALDERMAN THOMAS KING, K.C.C.I., J.P.

ALDERMAN A. LEON EMANUEL, J.P.

COUNCILLOR	G. ASHDOWNE	COUNCILLOR	H. F. HANN
,,	H. BLESSLEY	,,	H. KIMBER
,,	J. DUMMER	,,	G. J. MERRITT
,,	R. EMMETT	,,	J. MULVANY
,,	H. I. EVANS	,,	G. C. VERNON-INKPEN
,,	J. W. GIEVE		
,,	C. GILLETT	,,	G. YOUNG
,,	M. GILL		

Officers of the

Medical Officer of Health's Department.

Medical Officer of Health—
A. MEARNS FRASER, M.B., D.P.H.

Inspector of Nuisances—
F. L. BELL, CERT. SAN. INST.

Inspector C.D.A. Act, and Inspector of Nuisances—
G. W. MONKCOM.

Clerk—
C. W. HEARN.

Inspectors of Nuisances—
H. J. LOVELOCK, CERT. SAN. INST.
H. G. GRAY, CERT. SAN. INST.
G. L. SCOTT, CERT. SAN. INST.
G. W. McQUINN, CERT. SAN. INST.
J. S. HOBBS, CERT. SAN. INST.

Inspector of Workshops and Inspector of Nuisances—
W. E. BENJAMIN, CERT. SAN. INST.

Inspector of Drains and Inspector of Nuisances—
W. H. TURNER, CERT. SAN. INST.

Assistant Clerk—
T. V. SMITH.

Disinfector—
A. AYLMER.

Infectious Diseases Hospital.

Matron—
MRS. M. A. ANTRAM.

Report

of the

Medical Officer of Health

to the

Urban Sanitary Authority

of the

Borough of Portsmouth

For the Year ending the 31st day of December, 1897.

GENTLEMEN,

I have the honour to submit for your consideration my Annual Report for 1897, comprising statistical returns of Deaths and Infectious Disease in the Borough, the measures adopted for the prevention of disease, and an account of the work done by the Health Department.

During the year progress has been effected, especially in regard to house drainage and slum property, also considerable activity has been exercised in the inspection of food for human consumption. There is still, however, room for improvement in the sanitary condition of the Borough, especially would I direct your attention to three subjects which I regard of the greatest urgency, viz :—

Refuse disposal,
Building Bye-Laws, and the
Infectious Diseases Hospital at Milton.

I desire to express my thanks for the courtesy and kindness I have at all times received from the Members of the Sanitary Committee ; also my appreciation of the efficient manner in which their duties have been performed by the Sanitary Staff.

I have the honour to be, Gentlemen,

Your obedient Servant,

A. MEARNS FRASER, M.B., D.P.H.

Medical Officer of Health.

Statistics.

—:o:—

POPULATION.—The Population of the Borough in the middle of 1897, estimated by the Registrar General on the assumption that the increase from 1891 to 1897 has been in the same rate as between the years 1881 and 1891, was 182,585, if, however, the population is estimated on the number of *occupied* houses, allowing 5·4 persons to each house, the population would be *184,642*. It is probable, judging from the large number of new houses that have recently been built, that the latter estimation is the more correct of the two.

The density of the population is 40·7 persons to the acre, an increase of 4·5 persons per acre since 1891.

The population of the various sub-districts were as follows :—Portsmouth, 6,839 ; Portsea, 14,989 ; Kingston, 70,279 ; Landport, 72,978 ; Southsea, 17,500.

I am indebted to Mr. Baxter, Assistant Overseer to the Parish of Portsea, for the following particulars :

Total number of Assessments in Borough at 'Xmas 1897	37,136
Land, Stores, &c.	1,660
Number of Dwelling Houses	35,476
Voids at Xmas	1,283
Occupied Houses	34,193

BIRTHS.—4,897 Births were registered during the year, giving a birth rate of 26·8 per 1,000 population. This is the lowest birth rate I can find recorded in Portsmouth, and during the last twenty years it has gradually fallen from 35 in 1878 to 26·8 this year, that means that if our birth rate were the same as in 1878 there would have been 6,245 births registered, or an addition of 1,348. The average birth rate of the 33 large towns of England was 30·7.

The illegitimate births numbered 180, or 3·7 per cent. of the total number registered; the mean percentage of illegitimate births for the last ten years is 3·1.

The births were registered in the four quarters as follows:

	Legitimate			Illegitimate	
	M	F		M	F
First quarter ending March 27th —	598	619	—	14	32
Second ,, ,, June 26th —	548	582	—	18	27
Third ,, ,, September 25th—	585	593	—	16	23
Fourth ,, ,, January 1st, —	630	562	—	24	26
	2361	2356		72	108
	4717			180	

In the various sub-districts:

Portsmouth —	108	equal to a birth-rate of	14·71	per 1000	
Portsea —	318	,, ,, ,,	21·10	,,	,,
*Kingston —	2250	,, ,, ,,	20·87	,,	,,
Landport —	2048	,, ,, ,,	26·63	,,	,,
Southsea —	173	,, ,, ,,	9·14	,,	,,

*Fifty-six of the births registered in the Kingston sub-district occurred in the Portsea Island Union.

MARRIAGES.—1,589 marriages took place during 1897, being an increase of 8 on the previous year, and gives a marriage rate of 17·40 against that of 17·90 for 1896. Marriages occurred in the four quarters as follows :

First quarter	—	291	Third quarter	—	455
Second ,,	—	401	Fourth ,,	—	442

DEATHS.—2,974 deaths were registered during the year ; this is 56 lower than in the previous year, and gives a death-rate of 16·57. This is the lowest death-rate I can find recorded in Portsmouth but for the solitary exception cf 1894, when it reached the very low figure of 15·16. The average death-rate for the 33 large towns of England is 20·65, and ranges from 13·62 in Croydon, to 26·88 in Salford. In the table prepared by the Registrar General, giving the death-rates of the 33 large towns, Portsmouth comes third on the list, being preceded only by Croydon and Brighton, with death-rates respectively of 13·62 and 15·23.

THE DEATH-RATES for the four quarters of 1897 were as follows :

First quarter	—	17·06 per 1000
Second ,,	—	14·59 ,,
Third ,,	—	18·91 ,,
Fourth ,,	—	14·59 ,,

The increase in the death-rate during the third quarter was due to summer Infantile diarrhœa.

ZYMOTIC DEATH-RATE.—The Zymotic Death-rate —i.e., deaths from Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Fever, and Diarrhœa—of the 33 large towns of England is 2·87 compared with 2·53 for Portsmouth, and varies from 1·36 at Swansea, to 5·63 at Preston. The death-rates from Fever and Diarrhœa in Portsmouth are above the average of the 33 large towns, but are lower in all the other Zymotic diseases.

TABLE I.

Table, showing the Population, Marriages, Inhabited Houses, Births and Deaths, for the year 1897, and the ten preceding years.

GROSS NUMBERS.

Year	Estimated Population	No. of Inhabited Houses	Marriages	Registered Births	Correct No. of Deaths.		
					Total all Ages	Under 1 Year	Under 5 Years
1897	182,585	34,193	1,589	4,897	2,974	819	1,129
1896	178,612	33,477	1,581	5,006	3,030	785	1,156
1895	174,751	32,968	1,432	4,868	3,129	856	1,169
1894	170,973	31,377	1,462	4,709	2,593	611	967
1893	167,285	30,984	1,459	4,708	3,058	763	1,171
1892	163,667	30,305	1.464	4,563	3,026	719	1,068
1891	160,128	29,544	1,429	4,803	3,053	665	1,143
1890	156,667	28,875	1,318	4,881	2,847	648	941
1889	153,279	28,206	1,460	4,943	2,565	697	1,036
1888	149,966	27,539	1,358	4,976	2,614	671	988
1887	146,724	26,873	1,395	5,004	2,681	725	1,053
Average ten years 1887-96	162,205	30,015	1,435	4,846	2,859	714	1,069

NOTES.

1.—Population at Census, 1891 159,255

2.—Area in Acres 4,486

3.—Average number of persons in each house at Census ... 5·4

4.—Average number of persons per acre at Census ... 35·5

TABLE II.

Table, showing the Annual Birth Rate, Rate of Mortality, and Death Rates among Children for the year 1897 and 10 Years preceding.

Years.	Birth Rate per 1000 of the Population.	Annual Rate of Mortality per 1000 living from all causes.	Annual Rate of Mortality per 1000 living from 7 principal Zymotic Diseases.	Deaths of Children under 1 year Percentage of Total Deaths.	Percentage of Deaths of Children under 1 year to Registered Births.	Deaths of Children under 5 years Percentage of Total Deaths.
1897	26·82	16·28	2·53	27·5	16·7	37·9
1896	28·03	16·96	2·27	25·9	15·6	38·1
1895	27·84	17·90	2·31	27·3	17·6	37·5
1894	27·54	15·16	2·07	23·5	12·9	37·3
1893	28·14	18·28	3·09	24·9	16·4	38·3
1892	27·88	18·49	1·89	20·4	15·5	35·3
1891	29·90	19·06	2·49	21·7	13·8	37·4
1890	30·15	18·16	1·69	22·5	13·5	32·7
1889	31·25	16·71	1·95	27·1	14·1	40·3
1888	33·18	17·43	1·33	25·6	13·4	37·5
1887	34·10	18·27	2·24	27·0	14·3	39·2
Average of 10 years 1887-1896	29·80	17·64	2·13	24·6	14·7	37·3

TABLE III.

Showing the Population, Birth Rates, Recorded Death Rates, Corrected Death Rates, Zymotic Rates and Deaths under 1 Year to 1,000 Births in the 33 large Towns for the Year 1897.

NAME OF TOWNS.	Estimated Population middle of 1897.	PER 1,000 LIVING.			ZYMOTIC DEATH RATE.								Deaths of Children under 1 year of age to 1,000 Births
		Birth Rate	Recorded Death Rate	Corrected Death Rate	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Total	
33 Towns	10,922,524	30·7	19·10	20·65	0·00	0·55	0·18	0·31	0·41	0·18	1·24	2·87	177
Croydon	121,171	25·0	13·07	13·62	...	0·14	0·10	0·07	0·26	0·07	0·79	1·43	135
Brighton	121,401	24·7	15·06	15·23	...	0·14	0·10	0·10	0·21	0·18	0·91	1·64	144
Portsmouth	**182,585**	**26·9**	**16·21**	**16·57**	...	**0·19**	**0·06**	**0·15**	**0·35**	**0·24**	**1·54**	**2·53**	**168**
Cardiff	170,063	31·1	14·94	16·67	...	0·44	0·10	0·53	0·20	0·12	0·80	2·19	151
West Ham.....	273,682	32·2	15·66	16·89	...	0·51	0·11	0·37	0·36	0·18	1·08	2·61	172
Swansea	100,309	29·4	15·82	17·28	...	0·45	0·10	0·11	0·42	0·07	0·21	1·36	140
Derby.....	103,291	27·1	16·03	17·68	...	0·17	0·10	0·09	0·21	0·25	1·10	1·92	168
Bristol	232,242	27·8	17·20	17·97	0·00	0·25	0·08	0·15	0·50	0·20	0·65	1·83	149
Norwich.....	110,154	30·5	18·77	17·98	...	0·03	0·10	0·09	0·43	0·29	1·27	2·21	194
Halifax.....	95,747	22·5	16·48	18·35	...	0·50	0·22	0·09	0·09	0·17	0·32	1·39	140
Plymouth.....	97,658	28·5	19·04	18·51	...	0·50	0·05	0 13	0·54	0·08	0·87	2·17	185
Huddersfield...	101,454	23·4	16·40	19·07	...	0·27	0·32	0·20	0·21	0·15	0·35	1·50	131
Leicester	203,599	30·6	17·66	19·17	...	0·07	0·35	0·36	0·40	0·19	1·76	3·13	205
London	4,463,169	30·0	18·19	19·38	0·00	0·43	0·18	0·51	0·41	0·13	0·92	2·58	159
Hull	225,045	33·4	18·56	19·50	0·00	0·11	0·27	0·14	0·25	0·25	2·23	3·25	181
Gateshead	101.070	35·8	18·28	19·63	...	0·50	0·17	0·08	0·31	0·20	1·07	2·33	172
Bradford	231,260	24·6	17·45	19·97	...	0·35	0·04	0·07	0·19	0·13	1·44	2·22	179
Birkenhead	111,249	31·6	18·26	20·07	...	0·50	0·21	0·23	0·29	0·24	0·98	2·45	164
Nottingham	232,934	28·9	18·78	20·19	...	0·21	0·15	0·09	0·49	0·21	1·66	2·81	206
Sunderland.....	142,107	34·6	19·70	20·67	...	0·44	0·08	0·03	0·54	0·27	1·20	2·56	165
Newcastle.....	217,555	31·3	19·09	20·79	...	0·43	0·10	0·12	0·28	0·16	1·00	2·09	178
Blackburn	131,330	27·7	19·50	21·90	...	1·11	0·05	0·06	0·63	0·29	1·31	3·45	206
Oldham	145,845	26·1	19·18	21·97	...	0·67	0·14	0·08	0·53	0·14	1·05	2·61	183
Leeds	409,472	31·6	19·88	20·03	...	0·40	0·23	0·16	0·24	0·20	1·57	2·80	190
Burnley.....	106,122	29·8	19·51	20·41	...	1·33	0·05	0·57	0·60	0·18	1·25	3·98	220
Wolverhampton	87,287	35·1	22·05	23·07	...	0·53	0·24	0·62	0·44	0·28	2·11	4·22	217
Sheffield	351,848	34·4	21·20	23·57	...	0·56	0·26	0·13	0·40	0·31	1·83	3·49	198
Birmingham.....	505,772	33·3	21·59	23·86	...	0·79	0·18	0·29	0·44	0·18	2·00	3·88	214
Bolton	121,433	32·6	21·97	24·89	...	1·78	0·19	0·05	0·34	0·21	1·45	4·02	186
Manchester.....	534,299	33·2	23·10	26·17	...	1·18	0·23	0·09	0·56	0·19	1·56	3·81	195
Liverpool	633,078	35·3	24·37	26·76	...	0·54	0·33	0·20	0·56	0·27	1·93	3·83	200
Preston.....	115,103	31·9	24·36	26·78	...	2·77	0·04	0·03	0·26	0·30	2·23	5·63	262
Salford	213,190	35·1	23·91	26·88	...	2·22	0·29	0·15	0·53	0·31	2·00	5·50	219

TABLE IV.

Deaths Registered at several groups of Ages from different classes of Diseases during the Year 1897.

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Classes																		
I.—Zymotic Diseases	270	124	39	17	11	17	14	6	7	9	6	1	11	36	282	185	7	521
II.—Parasitic Diseases	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
III.—Dietic Diseases	...	...	...	...	2	3	5	2	1	1	...	...	...	4	5	4	1	14
IV.—Constitutional Diseases ...	45	34	21	70	73	67	63	28	28	43	18	...	15	35	226	179	35	490
V.—Developmental Diseases ...	91	...	...	...	...	...	...	4	7	60	118	52	1	14	189	102	26	332
VI.—Local Diseases	279	139	53	51	81	111	129	94	95	199	150	17	54	79	646	515	104	1398
VII.—Deaths from Violence... ...	16	11	2	3	8	10	10	4	4	11	4	...	5	6	36	24	12	83
VIII.—Deaths from Ill-Defined and not Specified Causes ...	117	2	...	...	2	1	1	2	1	3	5	1	4	5	64	60	2	135
Totals ...	819	310	115	141	177	209	222	140	143	326	301	71	91	179	1448	1069	187	2974
Class I. Zymotic Diseases—																		
Order 1.—Miasmatic Diseases																		
Measles	11	22	1	1	...	...	...	...	...	...	...	...	2	8	11	14	...	35
Scarlet Fever	...	9	2	...	...	...	...	...	...	...	...	...	...	1	8	2	...	11
Whooping Cough	22	42	1	...	...	...	...	...	...	...	...	...	6	8	31	18	2	65
Diphtheria...	2	4	14	...	1	1	...	...	...	...	...	...	...	2	15	4	1	22
Simple, Continued, or Ill-Defined Fever	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	1	2
Enteric or Typhoid Fever ...	2	5	14	9	3	5	4	...	...	...	...	...	...	...	32	9	1	42
Other Miasmatic Diseases (Influenza)	...	2	...	4	3	1	1	...	1	2	2	...	...	...	10	6	...	16
Order 2.—Diarrhœal Diseases ...																		
Diarrhœa, Dysentery	221	39	5	...	...	2	3	2	4	6	3	1	2	13	147	122	2	286
Order 4.—Venereal Diseases																		
Syphilis	10	1	...	...	...	1	3	...	1	...	...	...	...	3	10	3	...	16
Gonorrhœa, Stricture of Urethra ...	...	...	...	...	1	1	3	3	...	1	1	...	...	1	9	...	...	10
Order 5.—Septic Diseases ...																		
Erysipelas	2	...	...	...	1	...	...	1	...	...	...	...	...	...	3	1	...	4
Pyæmia, Septicæmia	...	...	1	...	...	2	...	...	...	...	...	...	...	...	3	...	...	3
Puerperal Fever	...	...	...	3	2	4	...	...	...	...	...	...	1	...	2	6	...	9

Class II.	PARASITIC DISEASES—																		
	Thrush and other Vegetable Parasitic Diseases ...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Class III.	DIETIC DISEASES—																		
	Chronic Alcoholism	...	...	...	...	...	2	3	4	2	1	1	...	...	...	4	5	3	1	13
	Delirium Tremens	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1
Class IV.	CONSTITUTIONAL DISEASES—																		
	Rheumatic Fever, Rheumatism of Heart	...	...	...	2	3	1	...	...	...	...	...	...	...	...	...	1	5	...	6
	Rheumatism	...	...	1	2	...	1	2	2	1	...	2	1	...	...	1	6	4	1	12
	Gout	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1
	Rickets	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	...	6
	Cancer, Malignant Disease ...	...	...	...	1	5	16	24	15	19	37	16	...	5	6	47	51	24	133
	Tabes Mesenterica	12	5	1	1	...	...	...	...	...	...	...	...	...	2	6	10	1	19
	Tubercular Meningitis, Hydrocephalus	16	14	5	4	...	...	...	...	...	...	...	...	...	3	16	20	...	39
	Phthisis	6	7	9	58	65	48	33	8	9	2	...	...	9	19	137	72	8	245
	Other forms of Tuberculosis, Scrofula	6	4	2	1	1	...	...	...	...	...	...	...	...	1	7	6	...	14
	Anæmia, Chlorosis, Leucocythœmia	...	1	...	1	...	...	...	1	...	...	...	...	...	1	1	1	...	3
	Glycosuria, Diabetes, Mellitus ...	...	...	...	1	...	1	3	3	...	2	1	...	1	2	3	4	1	11
	Other Constitutional Diseases ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Class V.	DEVELOPMENTAL DISEASES ...																		
	Premature Birth	91	...	...	...	...	...	...	...	...	...	...	...	1	3	44	39	4	91
	Old Age	...	...	...	...	...	...	...	4	7	60	118	52	...	11	145	63	22	241
Class VI.	LOCAL DISEASES—																		
	Order 1.—Diseases of Nervous System																		
	Inflammation of Brain or Membranes	12	15	17	7	2	6	...	1	3	2	1	...	6	4	22	31	3	66
	Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis ...	...	...	...	3	8	16	16	16	18	35	22	4	5	5	75	36	17	138
	Insanity, General Paralysis of the Insane	...	...	1	2	2	2	3	2	1	...	...	1	...	...	12	1	1	14
	Epilepsy	...	...	1	1	3	1	2	2	...	...	1	...	...	...	9	2	...	11
	Convulsions	43	8	1	...	...	...	...	...	...	...	...	...	...	3	18	30	1	52

TABLE IV.—(Continued).

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
LOCAL DISEASES---*Continued*																		
Laryngismus Stridulas, Spasm of Glottis	8	2	...	...	...	...	...	...	...	...	...	...	...	...	7	3	...	10
Diseases of Spinal Cord, Paraplegia, Paralysis Agitans ...	4	1	1	...	4	1	3	...	2	5	3	...	3	1	14	4	2	24
Other Diseases of Nervous System	...	...	1	1	1	1	1	...	1	1	...	...	...	...	6	1	...	7
Order 2.---Diseases of Organs of Special Sense (e.g. of Ear, Eye, Nose) ...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Order 3.---Diseases of the Circulatory System---																		
Pericarditis	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	2
Acute Endocarditis	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	1	1	3
Valvular Disease of Heart ...	...	...	2	4	5	5	3	3	3	14	4	1	...	5	18	15	6	44
Other Diseases of Heart ...	5	2	...	13	11	16	28	25	27	51	30	1	3	15	101	72	18	209
Aneurism	...	...	...	...	2	4	2	2	...	...	...	...	2	...	4	3	1	10
Embolism, Thrombosis ..	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
Other Diseases of Blood Vessels ...	...	...	1	...	2	4	1	...	...	1	1	...	...	...	3	6	1	10
Order 4.---Diseases of Respiratory System---																		
Laryngitis	1	1	1	...	...	1	...	1	1	...	...	...	1	...	1	4	...	6
Croup	1	8	2	...	...	...	...	...	...	...	...	...	...	...	9	...	2	11
Emphysema, Asthma	...	...	...	...	...	1	1	1	...	4	2	...	...	2	2	3	2	9
Bronchitis	78	41	8	1	3	8	15	16	18	43	49	7	7	14	140	114	12	287
Pneumonia	12	18	3	3	9	5	5	5	2	7	3	1	4	5	28	32	4	73
Pleurisy	...	...	...	...	1	3	...	1	...	...	1	...	...	...	3	2	1	6
Other Diseases of Respiratory System	28	22	...	...	1	6	6	3	1	7	9	2	3	3	38	35	6	85
Order 5.---Diseases of Digestive System																		
Dentition	23	9	...	...	...	...	...	...	...	...	...	...	3	1	11	16	1	32
Diseases of Stomach	25	1	2	1	2	1	1	3	1	1	...	...	1	2	17	16	2	38
Enteritis	26	3	...	...	...	...	2	...	...	1	...	...	...	4	11	15	2	32
Obstructive Diseases of Intestines	4	2	2	3	4	4	3	1	2	3	3	...	3	1	14	9	4	31
Peritonitis	3	1	5	3	3	2	5	...	1	...	...	...	...	...	13	9	1	23
Ascites	1	...	...	...	...	1	1	...	...	...	1	...	1	...	3	...	...	4

LOCAL DISEASES—*Continued*																		
Cirrhosis of Liver	...	...	...	...	2	1	7	1	1	3	2	...	1	2	8	4	2	17
Jaundice and other Diseases of Liver	2	...	1	2	2	2	2	1	1	1	2	...	...	2	6	6	2	16
Other Diseases of Digestive System	1	1	...	...	...	...	...	1	...	...	...	...	1	...	1	1	...	3
Order 6.—Diseases of Lymphatic System (e.g., of Lymphatics and Spleen) ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Order 7. — Diseases of Gland-like Organs of Uncertain Use (e.g., Bronchocele, Addison's disease) ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1
Order 8.—Diseases of Urinary System																		
Nephritis	...	...	...	2	4	5	11	3	5	7	3	...	1	8	18	11	2	40
Bright's Disease, Albuminuria ...	...	2	...	1	3	4	6	5	5	5	7	...	2	2	16	12	6	38
Diseases of Bladder or of Prostate	...	...	...	...	...	1	1	...	1	6	3	...	...	...	4	8	...	12
Other Diseases of Urinary System	...	...	...	...	2	2	2	1	...	2	2	...	...	5	2	4	...	11
Order 9.—Diseases of Reproductive System																		
(*a*) *Of Organs of Generation*																		
Female Organs	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1
(*b*) *Of Parturition*																		
Abortion, Miscarriage ...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1
Placenta Prævia, Flooding ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
Other accidents of Child-birth	...	...	...	2	...	5	...	...	...	...	...	...	1	...	3	3	...	7
Order 10.—Diseases of Bones and Joints																		
Caries, Necrosis	...	...	...	1	2	...	...	...	1	...	...	...	...	...	1	3	...	4
Arthritis, Ostitis, Periostitis ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Other Diseases of Bones and Joints	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	2
Order 11.—Diseases of Integumentary System																		
Other Diseases of Integumentary System	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1

TABLE IV.—(Continued).

	CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
		0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class VII.	DEATHS FROM VIOLENCE—																		
	Order 1.—Accident or Negligence																		
	Fractures, Contusions	...	2	...	...	2	1	1	1	1	1	1	...	...	2	4	4	...	10
	Gunshot Wounds	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1
	Burn, Scald	...	6	1	...	...	...	1	...	...	...	...	...	1	1	6	...	...	8
	Drowning	...	2	...	1	2	1	2	...	...	...	1	...	1	1	2	1	4	9
	Suffocation	15	...	...	...	...	1	1	...	...	1	...	...	...	1	7	9	1	18
	Otherwise	1	1	2	2	2	3	2	1	1	4	2	...	2	...	10	7	2	21
	Order 3.—Suicide																		
	Gunshot Wounds	...	...	...	...	1	...	1	...	...	1	...	...	1	...	...	...	2	3
	Cut, Stab	...	...	...	...	...	...	...	...	1	2	...	...	...	...	3	...	...	3
	Poison	...	...	...	...	1	2	1	1	...	...	...	...	...	...	2	2	1	5
	Hanging	...	...	...	...	...	...	1	...	1	...	...	...	1	1	...	...	...	2
	Otherwise	...	...	...	...	...	1	1	...	1	1	...	...	...	...	2	1	1	4
Class VIII.	DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES—																		
	Debility	117	2	...	...	...	1	1	...	...	1	...	...	4	5	58	53	2	122
	Mortification	...	...	...	...	...	...	...	1	...	1	4	1	...	...	3	4	...	7
	Tumour	...	...	...	...	2	...	...	1	...	...	1	...	...	...	3	1	...	4
	Abscess	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1
	Hœmorrhage	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1

SUMMARY OF TABLE IV.

Class.	Diseases.	Number of Deaths.
I.	Zymotic Diseases—	
	1. Miasmatic Diseases	193
	2. Diarrhœal Diseases	286
	3. Malarial Diseases	—
	4. Zoogenous Diseases	—
	5. Venereal Diseases	26
	6. Septic Diseases	16
II.	Parasitic Diseases	1
III.	Dietic Diseases	14
IV.	Constitutional Diseases	490
V.	Developmental Diseases	332
VI.	Local Diseases- -	
	1. Diseases of the Nervous System	322
	2. „ Organs of Special Sense	2
	3. „ Circulatory System	279
	4. „ Respiratory System	477
	5. „ Digestive System	196
	6. „ Lymphatic System	1
	7. „ Gland-like Organs of Uncertain Use ...	1
	8. „ Urinary System... ...	101
	9. „ Reproductive System—	
	(*a*) Organs of Generation ...	1
	(*b*) Parturition	9
	10. „ Bones and Joints	7
	11. „ Integumentary System	1
VII.	Violence—	
	1. Accident or Negligence	67
	2. Homicide	—
	3. Suicide	17
VIII.	Ill-Defined and not Specified Causes	135

TABLE V.

Deaths Registered at several groups of Ages from different classes of Diseases during the Quarter ending March 27th, 1897.

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Ports-mouth	Portsea	Kings-ton	Land-port	South-sea	
Class I. ZYMOTIC DISEASES—																		
Order 1.—Miasmatic Diseases																		
Measles	8	9	1	...	...	...	...	...	...	...	...	...	...	8	7	3	...	18
Scarlet Fever	...	3	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	3
Whooping Cough	8	17	...	...	...	...	...	...	...	...	...	...	1	3	13	8	...	25
Diphtheria	1	2	...	...	1	...	...	...	...	...	...	...	...	1	3	...	...	4
Enteric or Typhoid Fever ...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	3	...	...	3
Simple Continued Fever ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
Influenza	...	1	...	3	...	...	1	...	1	1	1	...	...	...	4	4	...	8
Order 2.—Diarrhœal Diseases																		
Diarrhœa, Dysentery	2	2	...	...	...	...	...	...	1	1	...	...	...	...	4	2	...	6
Order 5.—Venereal Diseases																		
Syphilis	4	...	...	...	...	...	1	...	...	...	...	...	...	1	3	1	...	5
Gonorrhœa, Stricture of Urethra ...	...	...	...	...	...	1	2	1	...	...	...	...	...	...	4	...	...	4
Order 6.—Septic Diseases																		
Erysipelas	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Pyæmia, Septicæmia	...	...	1	...	2	...	...	...	...	...	...	...	...	...	3	...	...	3
Puerperal Fever	...	...	...	1	2	2	...	...	...	...	...	...	...	...	1	4	...	5
II.—PARASITIC DISEASES	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
III.—DIETIC DISEASES	...	...	...	...	...	...	2	...	...	...	...	...	...	1	1	...	...	2
IV.—CONSTITUTIONAL DISEASES ...	6	7	5	17	13	14	17	8	7	6	2	...	7	6	43	43	3	102
V.—DEVELOPMENTAL DISEASES ...	20	...	...	...	...	...	...	...	2	15	36	21	1	5	52	29	7	94
VI.—LOCAL DISEASES	78	46	15	19	17	38	45	19	34	67	48	8	10	31	219	141	33	434
VII.—DEATHS FROM VIOLENCE ...	8	...	...	1	1	1	1	1	1	4	2	...	...	...	10	8	2	20
VIII.—NOT SPECIFIED OR ILL-DEFINED ...	30	...	...	...	...	1	...	1	1	2	3	1	1	1	15	20	2	39
TOTALS ...	168	88	23	41	36	58	69	30	48	96	92	30	21	57	388	265	48	779

TABLE VI.

Deaths Registered at several groups of Ages from different Classes of Diseases **during the Quarter ending June 26th, 1897.**

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Ports-mouth	Portsea	King-ston	Land-port	South-sea	
Class I. ZYMOTIC DISEASES—																		
Order 1—Miasmatic Diseases																		
Measles	1	7	...	1	...	...	...	...	...	...	...	...	2	...	...	7	...	9
Scarlet Fever	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Whooping Cough	9	15	...	...	...	...	...	...	...	...	...	...	2	1	13	6	2	24
Diphtheria	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Enteric or Typhoid Fever ...	1	3	4	2	1	1	1	...	...	...	...	...	...	...	12	1	...	13
Influenza	...	...	...	1	...	...	...	...	...	1	1	...	...	...	1	2	...	3
Order 2—Diarrhœal Diseases																		
Diarrhœa, Dysentery	6	2	1	...	...	...	...	...	2	1	...	...	...	...	4	8	...	12
Order 5—Venereal Diseases																		
Syphilis	2	1	...	...	...	1	1	...	...	...	...	...	...	1	4	...	...	5
Gonorrhœa, Stricture of Urethra ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1
Order 6—Septic Diseases																		
Puerperal Fever	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	1	...	2
II.—PARASITIC DISEASES	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—DIETIC DISEASES	...	...	...	...	...	1	1	1	1	...	...	...	...	1	2	1	...	4
IV.—CONSTITUTIONAL DISEASES ...	8	10	8	22	17	20	17	6	7	12	7	...	1	6	62	55	10	134
V.—DEVELOPMENTAL DISEASES ...	17	...	...	...	...	...	...	...	...	10	32	10	...	2	41	22	4	69
VI.—LOCAL DISEASES	49	32	12	11	27	27	29	22	27	56	49	3	13	14	154	131	32	344
VII.—DEATHS FROM VIOLENCE ...	1	4	1	1	3	4	2	...	...	3	1	...	2	2	7	6	3	20
VIII.—NOT SPECIFIED OR ILL-DEFINED	23	...	...	...	...	...	...	...	...	...	...	...	1	1	10	11	...	23
TOTALS	118	75	27	39	48	55	51	29	37	84	90	13	22	28	313	252	51	666

TABLE VII.

Deaths Registered at several groups of Ages from different classes of Diseases during the Quarter ending September 25th, 1897.

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals.
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class I. ZYMOTIC DISEASES—																		
Order 1.—Miasmatic Diseases																		
Measles	1	5	...	...	...	...	...	...	...	...	...	...	...	...	3	3	...	6
Scarlet Fever	...	3	1	...	...	...	...	...	...	...	...	...	...	1	3	...	...	4
Whooping Cough	3	7	1	...	...	...	...	...	...	...	...	...	3	3	4	1	...	11
Diphtheria	...	1	7	...	...	1	...	...	...	...	...	...	...	...	6	2	1	9
Simple Continued Fever ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Enteric or Typhoid Fever ...	1	1	3	5	2	2	3	...	...	...	...	...	...	...	12	4	1	17
Influenza	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2	...	...	2
Order 2.—Diarrhœal Diseases																		
Diarrhœa, Dysentery	211	33	4	...	...	2	3	2	1	4	3	1	2	13	138	109	2	264
Order 5.—Venereal Diseases																		
Syphilis	2	...	...	...	...	...	1	...	...	...	...	...	...	...	1	2	...	3
Gonorrhœa, Stricture of Urethra ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1
Order 6.—Septic Diseases																		
Erysipelas	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Puerperal Fever	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1
II.—PARASITIC DISEASES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—DIETIC DISEASES ...	...	...	...	...	1	...	2	...	...	1	...	...	...	...	2	2	...	4
IV.—CONSTITUTIONAL DISEASES ...	19	9	4	13	17	14	11	8	8	12	5	...	3	9	61	36	11	120
V.—DEVELOPMENTAL DISEASES ...	29	...	...	...	...	...	...	2	3	21	21	14	...	3	49	31	7	90
VI.—LOCAL DISEASES	72	25	9	11	14	19	27	20	18	31	26	2	7	12	127	116	12	274
VII.—DEATHS FROM VIOLENCE ...	1	5	1	...	1	2	3	2	...	3	1	...	2	3	6	5	3	19
VIII.—NOT SPECIFIED OR ILL-DEFINED ...	28	2	...	...	1	...	1	1	...	1	2	...	2	2	17	15	...	36
TOTALS ...	367	91	31	29	38	42	52	35	30	73	58	17	19	46	435	326	37	863

TABLE VIII.

Deaths Registered at several groups of Ages from different Classes of Diseases During the Quarter ending January 1st, 1898.

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class I. ZYMOTIC DISEASES—																		
Order 1—Miasmatic Diseases—																		
Measles	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Scarlet Fever	...	2	1	...	...	...	...	...	...	...	...	...	...	...	2	1	...	3
Whooping Cough	2	3	...	...	...	...	...	...	...	...	...	...	...	1	1	3	...	5
Diphtheria	...	1	6	...	...	...	...	...	...	...	...	...	...	1	5	1	...	7
Typhoid Fever	...	...	6	2	...	1	...	...	...	...	...	...	...	...	5	4	...	9
Influenza	...	1	...	...	2	...	...	...	...	...	...	...	...	...	3	...	...	3
Order 2—Diarrhœal Diseases—																		
Diarrhœa, Dysentery	2	2	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	4
Order 5—Venereal Diseases—																		
Syphilis	2	...	...	...	...	...	...	...	1	...	...	...	...	1	2	...	...	3
Gonorrhœa, Stricture of Urethra ...	...	...	...	...	1	...	...	2	...	...	1	...	...	1	3	...	...	4
Order 6—Septic Diseases—																		
Erysipelas	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1
Puerperal Fever	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
II.—PARASITIC DISEASES ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—DIETIC DISEASES ...	...	...	...	...	1	2	...	1	...	...	...	...	...	2	...	1	1	4
IV.—CONSTITUTIONAL DISEASES ...	12	8	4	18	26	19	18	6	6	13	4	...	4	14	60	45	11	134
V.—DEVELOPMENTAL DISEASES ...	25	...	...	...	...	...	...	2	2	14	29	7	...	4	47	20	8	79
VI.—LOCAL DISEASES	80	36	16	10	24	27	27	30	18	45	28	4	19	28	145	128	25	345
VII.—DEATHS FROM VIOLENCE ...	6	2	1	1	3	3	5	...	3	...	1	...	2	1	13	5	4	25
VIII.—NOT SPECIFIED OR ILL-DEFINED	36	...	...	...	1	...	...	...	...	...	...	...	...	1	22	14	...	37
TOTALS ...	166	56	34	32	58	52	50	42	30	72	63	11	25	54	311	227	49	666

TABLE IX.

Tables showing the Numbers and Death Rates per 1000 of Population from the Seven Principal Zymotic Diseases, from Lung Diseases (excluding Phthisis), from Phthisis, and from all causes, during each Quarter of the Year 1897, and for the whole Year 1897.

	The Seven Principal Zymotic Diseases.		Lung Diseases (excluding Phthisis).		Phthisis.		From all Causes.	
	Number.	Rate per 1000	Number.	Rate per 1000	Number.	Rate per 1000	Number.	Rate per 1000
Quarter ending March 27	60	1·31	158	3·46	54	1·18	779	17·06
Quarter ending June 26	61	1·32	125	2·73	69	1·51	666	14·59
Quarter ending Sept. 25	312	6·83	48	1·05	52	1·14	863	18·90
Quarter ending January 1	30	0·65	129	2·82	70	1·58	666	14·59
THE YEAR 1897	463	2·53	460	2·52	245	1·34	2974	16·28

TABLE X.

Shewing the Death Rates per 10,000 persons living, from the Seven Zymotic Diseases for each of the three decennial periods: 1851-1860, 1861-1870, and 1871-1880, and for the three quinquennial periods: 1881-1885, 1886-1890, 1891-1895, and for the years 1896 and 1897.

Diseases	1851 to 1860	1861 to 1870	1871 to 1880	1881 to 1885	1886 to 1890	1891 to 1895	Year 1896	Year 1897
Deaths from all Causes...	228	211·9	198·8	194·9	186·5	177·57	169·62	162·8
Zymotic Diseases ...	49·0	43·6	37·2	29·4	25·69	23·71	22·87	25·35
Small Pox	4·6	2·4	5·0	0·00	0·07	0·04	...	...
Measles	4·1	4·0	4·0	5·20	3·64	6·68	7·05	1·91
Scarlet Fever	8·8	8·3	5·5	1·46	1·20	0·95	1·06	0·60
Diphtheria	0·6	1·5	1·0	6·38	2·90	1·55	1·12	1·20
Whooping Cough ...	4·8	3·6	4·1	3·18	4·26	3·12	3·35	3·56
Fever	13·8	8·8	7·4	6·02	4·06	2·33	1·51	2·41
Diarrhœa and	13·1	13·1	10·1	7·14	9·58	8·91	8·78	15·66
Cholera	...	0·9	0·2	...	...	...	...	...
Consumption	28·1	25·5	21·9	21·10	19·35	15·45	15·84	13·41

TABLE XI.

Showing the number of Deaths from all ages from certain groups of diseases, and proportions of deaths of 1000 of Population and to 1000 deaths from all causes.

Infants under one year of age from other groups of diseases, and proportions to 1000 Births, and to 1000 Deaths from all causes under one year.

DIVISION I.

Diseases.	Total Deaths.	Deaths per 1000 of Population at all ages.	Proportion of Deaths to 1000 Deaths
1....Principal Zymotic Diseases ...	463	2·53	155
2....Pulmonary Diseases (excluding Consumption) ...	460	2·55	154
3....Principal Tubercular Diseases	284	1·56	95

DIVISION II.

Infants under 1 year	Total Deaths	Deaths per 1000 Births	Deaths per 1000 of Total Deaths under 1 year
4....Wasting Diseases ...	213	43·5	260
5....Convulsive Diseases ...	123	25·1	150

NOTES.

(1) Includes Small Pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhoid or Enteric Fever, Continued Fever, and Diarrhœa.

(3) Includes Phthisis (or Consumption), Scrofula, Tuberculosis, Rickets, and Tabes Mesenterica.

(4) Includes Marasmus, Atrophy, Want of Breast Milk, and Premature Birth.

(5) Includes Hydrocephalus, Infantile Meningitis, Convulsions and Teething.

TABLE XII.

Showing the number of Deaths in the Years 1861 to 1896 from the Seven principal Zymotic Diseases, and the Number in 1897.

Year	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	Annual Average of 10 years 1887-96	1897
Population	95,220	96,960	98,731	100,531	102,363	104,230	106,130	108,064	110,034	112,040	114,083	116,162	118,280	120,436	122,632	124,867	127,144	129,461	131,821	134,235	128,332	129,872	134,441	137,412	140,448	143,552	146,724	149,966	153,279	156,667	160,128	163,667	167,285	170,973	174,751	178,612	162,205	182,585
Diseases																																						
Small Pox	1	..	12	228	3	1	..	..	1	1	39	514	45	2	..	1	..	..	..	..	..	..	1	..	..	1	3	..	2	..	..	..	..	4	..	..	1·0	..
Measles ..	3	42	80	6	14	16	82	46	57	39	42	52	16	56	54	109	12	36	10	42	7	156	10	164	7	197	8	50	8	4	223	38	120	139	39	126	82·6	35
Scarlet Fever	5	226	134	17	20	34	15	107	295	119	30	5	12	36	47	457	36	16	11	9	25	40	16	9	5	18	26	12	11	19	9	18	32	14	7	19	16·6	11
Diphtheria	9	20	24	17	7	26	4	18	18	13	10	21	15	19	18	11	5	1	4	20	205	106	20	41	42	65	47	17	33	47	23	26	29	34	18	20	33·9	22
Whooping Cough	11	36	16	48	50	46	23	57	26	46	66	17	19	104	8	42	59	92	9	48	66	36	54	9	44	102	41	26	92	39	38	87	36	41	64	60	56·6	65
Fever ..	111	128	57	72	74	85	74	119	105	91	72	112	97	101	103	71	87	96	62	70	60	107	93	58	93	124	53	27	32	50	33	42	54	29	37	28	48·2	44
Diarrhœa ..	152	71	68	118	122	119	140	179	100	121	107	113	106	149	141	131	153	170	73	192	73	111	80	116	123	191	151	98	122	105	73	99	247	93	238	157	141·7	286
Totals ..	292	523	391	498	317	330	338	526	602	430	366	834	310	470	371	822	322	411	169	381	436	556	274	397	314	698	329	230	300	265	399	310	518	354	403	410	380·6	463

TABLE XIII.

Table showing the Death Rates per 1,000 Inhabitants from the chief Zymotic Diseases, Consumption and Diseases of the Lungs, in the Sub-Districts, and in the whole Borough. Deaths from Zymotic Diseases, occurring in Public Institutions, are entered in the Districts from which the patients who died were removed. Deaths from the other diseases occurring in Public Institutions, are distributed to the various Sub-Districts in accordance with the population for the year 1897, and also the means of the ten years 1887-1896 for the whole Borough.

DISEASES	Ports-mouth	Port-sea	King-ston	Land-port	South-sea	Whole Boro.	Means of 10 years
Small Pox	...	...	...	...	...	...	0·00
Measles	0·29	0·52	0·15	0·18	...	0·19	0·45
Scarlet Fever	...	0·06	0·08	0·05	...	0·06	0·09
Diphtheria	...	0·13	0·15	0·10	0·05	0·12	0·18
Whooping Cough	0·87	0·53	0·42	0·24	0·11	0·35	0·32
Fever	...	...	0·40	0·17	0·11	0·24	0·23
Diarrhœa	0·29	0·86	1·96	1·68	0·11	1·56	0·84
Principal Zymotic Diseases ...	1·45	2·10	3·16	2·42	0·38	2·53	2·11
Consumption	1·31	1·25	1·68	1·16	0·45	1·31	1·71
Other Tubercular Diseases ...	...	0·19	0·22	0·26	0·05	0·21	0·52
Lung Diseases	2·04	1·58	2·95	2·41	1·42	2·51	3·21
FROM ALL CAUSES ...	13·28	11·82	19·61	14·53	10·62	16·2	17·64

TABLE XIV.

VACCINATION. Return for the Period, January—June, 1897.

DISTRICTS	No. of Births returned in Birth List Sheets so registered from 1st Jan. to 30th June, 1897.	No. of those Births duly entered by 31st Jan., 1898, in columns 10, 11, and 13 of the Vaccination Register ("Birth List Sheets"), viz:				No. of these Births which on the 31st Jan., 1898, remained un-entered in the Vaccination Register on account of			No. of these Births remaining
		10 Successfully Vaccinated	11 Insuspectable of Vaccination	11 Had Small Pox	13 Dead unvaccinated	Postponement by Med. Cert.	Removed to Districts the Vacc. Officer of which has been apprised	Removed to Places unknown, &c.	
Kingston ...	1078	938	3	...	97	26	12	...	2
Portsea ...	148	136	...	...	4	2	6	...	...
Portsmouth ...	120	103	...	...	5	5	3	2	2
Landport ...	1066	914	6	...	102	23	16	3	2
Totals ...	2412	2091	9	...	208	56	37	5	6
VACCINATION OF CHILDREN whose Births were registered in this district from Jan. 1st to Dec. 31st, 1896, inclusive.									
Kingston ...	2214	1982	5	...	197	13	10	7	...
Portsea ...	355	304	1	...	44	1	3	2	...
Portsmouth ...	300	257	3	...	27	3	2	6	2
Landport ...	2051	1786	16	...	208	14	20	5	2
Totals ...	4920	4329	25	...	476	31	35	20	4

SMALL POX.—No case of small pox occurred during the year.

SCARLET FEVER.—Six hundred and ninety-nine cases of scarlet fever were notified during the year, of which, 11, or 1·57 per cent., proved fatal; out of the 699, 413, or 59 per cent., were admitted to the Milton Hospital, of which, 9, or 2·17, proved fatal. Table XXI. shows the number of cases in each district.

In 124 cases, or 17·74 per cent., sanitary defects were found upon the premises where scarlet fever occurred.

TABLE XV.

Table showing the number of cases of **Scarlet Fever** notified, the number of deaths, and the percentage of deaths to cases notified for the years 1884-1897.

Year.	Cases notified.	No. of Deaths.	Percentage of deaths to notified cases.
1884	266	9	3·38
1885	314	5	1·59
1886	343	18	5·24
1887	647	26	4·02
1888	465	12	2·58
1889	728	11	1·51
1890	573	19	3·31
1891	326	9	2·76
1892	1023	18	1·76
1893	1176	32	2·73
1894	458	14	3·06
1895	311	7	2·25
1896	524	19	3·62
1897	699	11	1·57
Totals (14 years)	7847	210	2·67

Table showing the number of cases of **Scarlet Fever** admitted to the Milton Hospital the number of deaths, and the percentage of deaths to number of cases of Scarlet Fever admitted for the years 1884-1897.

Year.	Cases admitted.	No. of Deaths.	Percentage of deaths to cases admitted.
1884	13	...	...
1885	16	...	...
1886	29	...	...
1887	56	1	1·78
1888	120	1	0·88
1889	278	1	0·36
1890	384	11	2·86
1891	180	3	1·66
1892	532	6	1·10
1893	503	6	1·19
1894	238	8	3·36
1895	177	2	1·13
1896	352	11	3·15
1897	413	9	2·17
Totals (14 years)	3291	59	1·79

DIPHTHERIA.—One hundred and forty-six cases of diphtheria were notified during the year, being 22 more than in 1896. 22 of the cases proved fatal, giving a percentage of deaths to cases notified of 15·0. Of the 146 cases, 37 only, or 25·3 per cent., were removed to Hospital, out of which, only 3 were fatal. Here I would point out the great service rendered by the diphtheria antitoxin; I am convinced that had it not been for this, the number of deaths from diphtheria would have been much higher. Antitoxin is given to any medical practitioner on application, and during the latter part of the year, a number of cases were examined by me bacteriologically for various practitioners in the town. Sanitary defects were found in 36, or 24·7 per cent. of the premises where diphtheria occurred.

TABLE XVI.

Table showing the nnmber of cases of **Diphtheria** notified, the number of Deaths and the percentage of Deaths to cases notified for the Years 1884 to 1897.

Year	Cases notified	No. of Deaths	Percentage of Deaths to cases notified
1884	174	41	23·44
1885	173	42	24·25
1886	232	65	26·72
1887	260	47	19·08
1888	128	17	13·28
1889	126	33	26·19
1190	212	47	22·69
1891	140	23	16·42
1892	121	26	21·48
1893	140	29	21·48
1894	139	34	24·46
1895	124	18	14·51
1896	124	20	16·12
1897	146	22	15·07
Totals 14 Years	2239	464	20.72

Table showing the number of cases of **Diphtheria** admitted to the Milton Hospital the number of Deaths, and the percentage of Deaths to cases of Diphtheria admitted for the years 1884 to 1897.

Year	Cases admitted	No. of Deaths	Percentage of Deaths of cases admitted
1884	4	1	25·00
1885	6	—	—
1886	11	1	9·09
1887	27	8	23·70
1888	23	—	—
1889	18	—	—
1890	64	18	28·12
1891	51	4	7·84
1892	27	6	22·22
1893	12	4	33·33
1894	38	8	21·05
1895	46	5	10·87
1896	41	4	9·80
1897	37	3	8·11
Total 14 Years	405	62	15·31

Enteric or Typhoid Fever.—The number of cases of enteric fever reported was 320, or nearly 100 more than in the previous year. Out of this number, 42, or 13·08, proved fatal; 102 cases were removed to Milton Hospital, of these, 11, or 10·78, were fatal.

Of the 320 cases, 280, or 87 per cent., occurred in Landport and Kingston, 9 in Southsea, 24 in Portsea, and 7 in Portsmouth. The attack rate per 1,000 population in the various districts was as follows:—

Portsmouth	Portsea	Kingston	Landport	Southsea
1·0	1·6	2·4	1·4	0·5

On the premises where typhoid occurred, sanitary defects were found in 108, or 33·6 per cent.

In investigating the causation of this disease, it is becoming more and more certain that pollution of the soil surrounding houses is an important factor. During the past year, a number of experiments have been made, showing that the typhoid bacillus may exist for months in a favourable, *i.e.* a polluted, soil; this being the case, it is very necessary that the soil surrounding houses should be protected from pollution by impervious pavement. In an old town like Portsmouth the whole surrounding soil has been for ages polluted by refuse of every description, and with the increase in size of the town, houses are gradually being erected on this polluted soil. In order that these houses should be healthy, it is essential that the ground air from this soil should be prevented from gaining access to the houses by having a layer of concrete and cement laid over the whole foundation. Our Building Bye-laws of 1869, however, make no provision for this; consequently it is practically never done.

TABLE XVII.

Table showing the number of cases of **Typhoid Fever** notified, the number of Deaths, and the percentage of Deaths to cases notified, for the years 1884 to 1897.

Year	Cases notified	No. of Deaths	Percentage of Deaths to cases notified
1884	539	58	10.76
1885	762	93	11·48
1886	1249	124	9.90
1887	554	53	9.52
1888	313	27	8.60
1889	317	32	10.01
1890	457	50	10.94
1891	265	33	12.40
1892	330	38	11.51
1893	361	54	14.96
1894	201	25	12.44
1895	258	33	12.74
1896	235	27	11.49
1897	320	42	13.08
Totals 14 Years	6161	679	11.02

Table showing the number of cases of **Typhoid Fever** admitted to the Milton Hospital, the number of Deaths, and the percentage of Deaths to cases of Typhoid Fever admitted for the years 1884 to 1897.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases admitted
1884	2	—	—
1885	6	—	—
1886	66	4	6.06
1887	37	1	2.70
1888	35	—	—
1889	48	6	12.50
1890	114	5	4.38
1891	51	4	7.84
1892	81	6	7.41
1893	94	3	3.19
1894	53	3	5.85
1895	83	4	4.82
1896	83	6	7.23
1897	102	11	10.78
Totals 14 Years	855	53	6.20

Measles—During this year the town has been comparatively free from this disease, and only 35 deaths were registered from it, as compared with 126 in the previous year.

Whooping Cough—During this year 65 deaths were caused by Whooping Cough, an increase of five on the previous year. Sanitary defects were found in 10 instances, or 15·38 per cent. of the houses in which the disease was known to exist.

Influenza—The deaths from this disease are still slightly decreasing, and only 16 deaths were registered from it, as against 19 in 1896, 93 in 1895, 37 in 1894, 53 in 1893, and 165 in 1892.

Puerperal Fever—Nineteen cases of this disease were reported, of which 9 proved fatal. The usual steps were taken for disinfection of nurse or midwife in each case.

In 4 instances, or 35 per cent., sanitary defects were found on the premises in which Puerperal Fever occurred.

Compulsory Notification of Infectious Disease—Under the Portsmouth Corporation Act, 1250 cases of Infectious Disease have been reported, against 958 in the previous year. As a result of notification we have been enabled to disinfect 1,074 infected rooms, and supply disinfectants to householders where necessary. 357 letters have been sent to the Clerk to the School Board, the principals of various schools, and Superintendents of Sunday Schools advising the exclusion of children from various infected houses. 265 letters have been sent to Public Libraries.

DIARRHŒA—During the past year a very heavy mortality occurred from Diarrhœa. Altogether 286 deaths were registered from this cause, out of these 260 occurred among children under 5 years of age, of which 221 were under 1 year. Out of the children who died under 1 year of age 196, or 88 per cent. were artificially fed. The incidence of deaths, as will be seen by referring to Table XVIII. was greatest during the last two weeks in July, the month of August, and the first fortnight of September, 247 occurring during that period. The majority of these deaths may safely be attributed to the following causes: injudicious feeding, want of cleanliness, adulteration of milk, neglect to scald the milk and feeding bottle each time before use, soil pollution under and around houses, and the presence of the tubercle bacillus in milk. If the milk and feeding bottle were thoroughly scalded each time, immediately before use, this terrible summer diarrhœa would be prevented. During the hot summer weather when the 4ft. earth thermometer reaches about 60 degrees Fahrenheit, germ life becomes most active, milk forms the best substance for germs of any description to grow in, and after it has been standing for a little time, each drop contains millions of bacilli of various kinds, especially that known as the bacillus coli communis ; these act as irritants to the intestinal canal of children, which is not strongly enough developed to fight against them, and the result is a rapidly fatal diarrhœa. If, however, the milk were raised to boiling point before use, these germs would be destroyed, and, as I have said, this tremendous mortality from summer diarrhœa would probably be abolished.

Sanitary defects were found in 68, or 23·67 of the houses where cases of fatal diarrhœa occurred.

TABLE XVIII.

Showing the relation of Temperature and fatal cases of Diarrhœa.

Week ending.	Temperature of Air.		Temperature of Earth Thermometer		Total Rainfall in inches	Deaths from Diarrhœa
	Mean of Maximum	Mean of Minimum	1 Foot	4 Feet		
1897.						
June, 5th ...	68·3	50·8	58·5	53·2	0·77	3
,, 12th ...	67·4	53·3	62·8	55·3	1·45	—
,, 19th ...	65·5	52·6	64·1	56·9	0·422	2
,, 26th ...	72·07	55·3	64·0	59·0	0·55	1
July, 3rd ...	70·14	57·5	66·8	58·8	0·17	1
,, 10th ...	67·5	54·43	64·7	59·8	0·06	5
,, 17th ...	76·1	55·07	68·8	60·3	—	2
,, 24th ...	70·21	57·7	66·8	61·1	0·56	19
,, 31st ...	72·6	59·5	67·8	61·9	0·01	45
Aug., 7th ...	74·5	58·6	69·07	62·2	0·31	46
,, 14th ...	70·1	57·3	66·9	62·9	0·37	40
,, 21st ...	67·4	57·8	64·3	62·6	0·72	41
,, 28th ...	66·31	55·21	63·1	62·0	1·595	26
Sept., 4th ...	63·7	53·66	61·9	61·6	1·63	20
,, 11th ...	62·6	50·8	58·64	60·64	0·50	10
,, 18th ...	64·04	50·0	58·9	59·7	0·80	4
,, 25th ...	63·26	50·9	57·1	58·6	0·178	5
Oct., 2nd ...	64·2	52·5	59·2	58·5	0·461	1
,, 9th ...	57·8	45·2	54·2	58·1	—	1
,, 16th ...	59·3	48·07	53·5	56·5	0·185	1

TABLE XIX.

Cases of Infectious Diseases coming to the knowledge of the Portsmouth Urban Sanitary Authority, **during the year 1897.**

	0—1	1—5	5—15	15—25	25—35	35—45	45—55	55—65	65—75	75—85	85 and over	Totals
SMALL POX												
Portsmouth ...	...	...	...	...	...	...	...	...	...	...	...	...
Portsea ...	...	...	...	...	...	...	...	...	...	...	...	...
Kingston ...	...	...	...	...	...	...	...	...	...	...	...	...
Landport ...	...	...	...	...	...	...	...	...	...	...	...	...
Southsea ...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	...	...	...	...	...	...	...	...	...	...	...	...
SCARLET FEVER												
Portsmouth ...	...	1	4	...	...	...	...	...	...	...	...	5
Portsea ...	...	7	22	4	...	1	...	...	...	...	...	34
Kingston ...	4	81	197	29	7	4	...	...	...	...	...	322
Landport ...	1	82	194	20	9	...	3	1	...	...	...	310
Southsea ...	1	1	15	5	2	1	2	1	...	...	...	28
Total ...	6	172	432	58	18	6	5	2	...	...	...	699
DIPHTHERIA												
Portsmouth ...	...	1	1	...	...	...	...	...	...	...	...	2
Portsea ...	1	4	3	...	2	...	...	...	...	...	...	10
Kingston ...	...	10	39	11	3	3	...	...	...	...	...	66
Landport ...	1	14	30	13	4	2	...	...	1	...	...	65
Southsea ...	...	1	1	2	...	1	...	...	...	...	...	5
Total ...	2	30	74	26	9	6	...	...	1	...	...	148
ENTERIC FEVER												
Portsmouth ...	...	1	2	2	1	1	...	...	...	...	...	7
Portsea ...	...	1	15	4	1	3	...	...	...	...	...	24
Kingston ...	7	26	71	30	19	12	5	3	1	...	...	174
Landport ...	...	9	53	21	12	4	5	1	1	...	...	106
Southsea ...	...	...	4	3	2	...	...	...	...	...	...	9
Total ...	7	37	145	60	35	20	10	4	2	...	...	320
CONTINUED FEVER												
Portsmouth ...	...	...	...	...	...	...	...	...	...	...	...	...
Portsea ...	...	...	2	...	1	...	...	...	...	...	...	3
Kingston ...	...	5	10	6	5	3	2	...	...	...	...	31
Landport ...	...	5	10	4	2	...	...	1	...	...	...	22
Southsea ...	...	...	3	3	...	...	...	2	...	...	...	8
Total ...	...	10	25	13	8	3	2	3	...	...	...	64
PUERPERAL FEVER												
Portsmouth ...	...	...	...	1	...	...	...	...	...	...	...	1
Portsea ...	...	...	...	...	...	...	...	...	...	...	...	...
Kingston ...	...	...	...	4	3	1	1	...	...	...	...	9
Landport ...	...	...	...	2	4	1	1	...	...	...	...	8
Southsea ...	...	...	...	...	1	...	...	...	...	...	...	1
Total ...	...	...	...	7	8	2	2	...	...	...	...	19

TABLE XX.

WEEKLY RETURN of Cases of Infectious Diseases reported in accordance with the Portsmouth Corporation Act, 1883, during the year 1897.

Week ending		Small Pox.	Scarlet Fever.	Diphtheria.	Fevers.		Puerperal Fever.	Total.
					Enteric.	Continued.		
1897								
January	9th	...	15	...	2	3	...	20
,,	16th	...	11	3	1	...	2	17
,,	23rd	...	13	1	...	...	...	14
,,	30th	...	9	1	1	...	...	11
February	6th	...	18	2	3	...	1	24
,,	13th	...	14	3	1	1	1	20
,,	20th	...	9	3	2	1	...	15
,,	27th	...	13	3	2	...	...	18
March	6th	...	2	1	2	1	...	6
,,	13th	...	7	1	1	2	1	12
,,	20th	...	8	3	...	1	...	12
,,	27th	...	3	4	3	...	...	10
April	3rd	...	10	...	3	1	...	14
,,	10th	...	14	...	3	1	...	18
,,	17th	...	10	...	4	1	...	15
,,	24th	...	7	3	2	1	...	13
May	1st	...	12	2	5	1	...	20
,,	8th	...	8	1	2	1	1	13
,,	15th	...	13	3	...	2	...	18
,,	22nd	...	9	3	...	1	...	13
,,	29th	...	18	1	5	2	...	26
June	5th	...	20	2	5	...	...	27
,,	12th	...	14	...	5	...	1	20
,,	19th	...	9	1	5	4	1	20
,,	26th	...	11	2	5	2	...	20
July	3rd	...	13	...	5	...	...	18
,,	10th	...	18	5	8	...	...	31
,,	17th	...	14	4	12	1	...	31
,,	24th	...	12	8	14	1	1	36
,,	31st	...	15	2	10	2	...	29
August	7th	...	17	4	9	2	...	32
,,	14th	...	14	4	10	2	...	30
,,	21st	...	18	4	9	...	...	31
,,	28th	...	17	6	9	...	...	32
September	4th	...	10	4	20	7	...	41
,,	11th	...	15	2	12	1	1	31
,,	18th	...	19	3	11	1	...	34
,,	25th	...	17	5	18	1	1	42
October	2nd	...	19	1	13	5	...	38
,,	9th	...	17	4	12	1	1	35
,,	16th	...	17	4	19	5	1	46
,,	23rd	...	14	3	7	1	...	25
,,	30th	...	18	6	14	...	2	40
November	6th	...	15	8	9	...	...	32
,,	13th	...	13	1	7	2	1	24
,,	20th	...	23	4	5	...	...	32
,,	27th	...	24	3	4	...	1	32
December	4th	...	11	4	7	...	1	23
,,	11th	...	21	3	4	2	1	31
,,	18th	...	17	6	3	2	...	18
,,	25th	...	7	3	2	...	...	12
January	1st	...	17	4	3	1	...	25
TOTALS ...		...	699	148	320	63	19	1250

TABLE XXI.

Shewing the number of Infectious Diseases reported to the Medical Officer of Health under the Portsmouth Corporation Act.

Year	Small Pox	Scarlet Fever	Diphtheria	Fevers		Puerperal Fever	Totals
				Enteric	Continued		
1885	8	314	173	762	...	2	1259
1886	7	343	232	1249	...	14	1845
1887	23	647	260	554	...	11	1495
1888	3	465	128	313	...	11	920
1889	6	728	126	317	...	6	1183
1890	...	573	212	457	125	4	1371
1891	...	350	138	265	52	15	820
1892	...	1023	121	330	76	2	1552
1893	6	1153	135	366	69	25	1754
1894	22	458	139	201	49	9	878
1895	...	311	124	258	62	15	770
1896	6	524	124	235	51	18	958
Totals	81	6889	1912	5307	484	132	14805
Means	6·7	5·74	159·3	442·2	40·4	11	1233·3
1897	...	699	148	320	64	19	1250

TABLE XXII.

Showing the Death Rates of the 7 Principal Zymotic Diseases during the 25 years, 1873—1897, distinguishing between those which are compulsory Notified and those which are not.

DISEASE	BEFORE NOTIFICATION ACT											AFTER NOTIFICATION ACT													
	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897
Small Pox	0·38	0·01	..	..	..	..	..	..	..	..	..	..	..	..	0·02	..	..	..	..	..	..	0·02	..	..	..
Scarlet Fever ..	0·10	0·30	0·38	3·78	0·29	0·13	0·08	0·06	0·19	0·30	0·11	0·06	0·03	0·12	0·17	0·08	0·07	0·12	0·06	0·11	0·10	0·08	0·04	0·10	0·06
Diphtheria ..	0·13	0·16	0·14	0·09	0·04	0·01	0·03	0·14	1·59	0·80	0·14	0·29	0·29	0·45	0·32	0·11	0·21	0·29	0·14	0·16	0·17	0·20	0·10	0·11	0·12
Fever	0·83	0·85	0·84	0·58	0·71	0·77	0·51	0·49	0·46	0·81	0·69	0·42	0·64	0·86	0·34	0·11	0·20	0·31	0·21	0·27	0·32	0·17	0·21	0·15	0·24
Total Notifiable Diseases	1·44	1·32	1·36	4·45	1·07	0·91	0·62	0·69	2·24	1·91	0·94	0·77	0·96	1·43	0·85	0·30	0·48	0·72	0·41	0·54	0·68	0·47	0·35	0·36	0·42
Measles	0·14	0·47	0·44	0·90	0·09	0·29	0·07	0·29	0·05	1·18	0·07	1·12	0·04	1·37	0·05	0·33	0·05	0·03	1·39	0·23	0·72	0·81	0·22	0·70	0·19
Whooping Cough ..	0·16	0·88	0·07	0·34	0·48	0·74	0·07	0·34	0·51	0·27	0·40	0·06	0·31	0·71	0·28	0·17	0·60	0·24	0·24	0·53	0·21	0·24	0·36	0·33	0·35
Diarrhœa	0·91	1·26	1·15	1·07	1·25	1·37	0·59	1·36	0·56	0·81	0·59	0·85	0·87	1·13	1·03	0·65	0·80	0·67	0·46	0·60	1·47	0·54	1·36	0·87	1·56
Total Non-Notifiable Diseases	1·21	2·61	1·66	2·31	1·83	2·40	0·73	1·99	1·12	2·26	1·06	2·10	1·22	3·41	1·36	1·15	1·45	0·93	2·09	1·36	2·40	1·59	1·94	1·90	2·10
TOTAL ZYMOTIC DEATH RATE	2.65	3·93	3·02	6·76	2·90	3·31	1·35	2·68	3·46	4·17	2·00	2·87	2·18	4·84	2·21	1·45	1·93	1·65	2·50	1·90	3·08	2·06	3·30	2·26	2·52

Mean Death Rate from Notifiable Diseases for	11 years	before the adoption of Notification	..	1·54 per 1,000
,, ,, ,, ,,	14 ,,	after ,, ,,	..	0·62 ,,
,, ,, Non-Notifiable ,,	11 ,,	before ,, ,,	..	1·74 ,,
,, ,, ,, ,,	14 ,,	after ,, ,,	..	1·78 ,,
,, ,, the 7 principal Zymotic Diseases for	11 years	before ,,	..	3·30 ,,
,, ,, ,, ,, ,,	14 ,,	after ,,	..	2·40 ,,

MILTON HOSPITAL FOR INFECTIOUS DISEASES—This institution has again been largely used during the past year. Altogether 628 patients have been treated in the different wards, the largest number being cases of scarlet fever; on referring to Table XXIII the number of cases of each disease will be seen. During the year I have made repeated endeavours to prevent overcrowding of the wards, it is absolutely essential to the well-being of patients in a fever hospital that they should have plenty of air space. Unfortunately our accommodation is so small that it is often impossible to allow the proper amount of air space to each bed. At the present time we have accommodation for not more than 55 cases of scarlet fever, 12 cases of typhoid, and 12 cases of diphtheria. By serious overcrowding, and to the detriment of the patients, we could doubtless get another 30 patients or so into the wards. This accommodation is quite inadequate to the needs of the Borough, and as I pointed out in my last Annual Report, we should have wards capable of accommodating at the very least another 40 patients. I would also again point out the necessity for having three or four rooms built which could be used for "observation wards," *i.e.*, wards in which a patient who is suspected to be suffering from an infectious disease, but who does not exhibit symptoms definite enough to justify his being put into a fever ward, might be detained for a few days until the disease has thoroughly declared itself.

I wish to express my appreciation of the kindness and attention of the Matron and nurses to the patients, also to acknowledge my indebtedness to Dr. James McGregor for his assistance willingly rendered on numerous occasions.

The Thresh steam disinfector has again proved very useful during the year, 5,833 articles having been disinfected by it. The working of the machine is simple, economical, and the results satisfactory.

TABLE XXIII.

Cases under treatment at the Milton Hospital during the year 1897.

DISEASES	AGES.								Total
	0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-60	
Small Pox ...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	119	282	50	10	5	2	...	468
Typhoid Fever ...	...	14	43	19	17	3	5	1	102
Diphtheria ...	1	7	25	6	1	1	...	...	41
Measles ...	...	1	3	...	1	1	...	...	6
Puerperal Fever ...	...	...	...	...	1	...	1	...	2
Continued Fever ...	...	2	3	2	...	...	...	...	7
Chicken Pox ...	...	...	...	1	...	...	...	...	1
Influenza ...	...	...	...	1	...	...	...	...	1
TOTALS ...	1	143	356	79	30	10	8	1	628

TABLE XXIV.

Number of Patients admitted to the Hospital for the Years

1883 to 1897.

DISEASES	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897
Small Pox ...	5	1	8	7	20	4	6	1	...	...	6	22	...	6	...
Scarlet Fever ...	1	13	16	29	56	120	278	384	180	532	503	238	177	352	413
Enteric or Typhoid ...	2	6	66	37	35	48	114	51	81	94	53	83	76	102	
Diphtheria	4	6	11	27	23	18	69	52	27	12	38	46	38	37	
Measles ...	1	2	1	11	4	8	5	1	22	...	6	22	15	10	6
Other Diseases ...	...	...	...	1	3	8	8	7	18	5	5	9	25	17	11
Total ...	7	22	37	125	147	194	363	576	322	645	626	382	346	499	569

WATER SUPPLY.—The following is a summary of the Analytical Results of the water supplied by the Borough of Portsmouth Water Works Company :—

Date when taken	Where taken from	Grains per Gallon			Total Hardness	Parts per Million		Poisonous Metals	Remarks.
		Total Solid Residue	Chlorine	Nitrogen as Nitrates		Free Ammonia	Albumi-noid Ammonia		
1897 Feb. 5	Corporation Yard	22	1·2	0·23	16·5	0·002	0·04	..	Colour, bluish-green; faintly cloudy; well ærated
Mar. 4	Do. ..	22	0·5	0·30	16·	0·001	0·03	..	A good deal more cloudy than usual; slight deposit of sand
Apr. 15	Do. ..	24	1·5	·26	16·5	0·003	·008	..	Rather cloudy, yellowish tint
May 17	Do. ..	20·3	1·6	0·218	16·0	0·005	0·10	..	Bright, well ærated, very slightly clouded colour
July 17	Town Hall ..	25·0	1·5	0·15	16·5	..	0·04	..	Do. Do.
Aug. 16	Do. ..	24·2	1·4	0·18	16·5	0·001	0·03	Nil	....
,, 30	Do. ..	22·3	1·5	0·20	15·5	..	0·06	Nil	Slightly yellowish; rather more cloudy than usual
Oct. 15	Do. ..	24·9	0·9	0·16	15·5	..	0·032	Nil	Well ærated; faint bluish-green tint; clear
,, 23	Do. ..	24·6	1·2	0·25	15·5	..	0·02	Nil	Faint bluish tint; good lustre; clear
Nov. 3	Do. ..	24·6	0·85	0·20	15·7	..	0·04	Nil	Clear, well ærated; faint bluish tint
,, 8	Do. ..	24·9	0·85	0·17	15·8	..	0·03	Nil	Clear, well ærated; bluish tint
,, 23	Do. ..	23·9	1·0	0·28	16·0	..	0·02	Nil	Do. Do.
Dec. 8	Do. ..	23·6	0·90	0·25	15·8	..	0·02	Nil	Faint bluish tint; clear and sparkling
,, 14	Do. ..	23·6	0·90	0·16	15·5	..	0·072	Nil	Faint cloudiness; sparkling and well ærated
,, 23	Do. ..	23·4	0·85	0·30	15·8	..	·03	Nil	Very faint cloudiness; bluish-grey tint

HOUSES UNFIT FOR HABITATION.—Thirty-seven houses have been certified to be unfit for human habitation, and these premises have, upon such certificates, been declared unfit by the Sanitary Authority.

PREMISES CONDEMNED IN 1897.

Situation of Premises.	Date.
No. 4, Crown Street, Portsmouth ...	March 15th, 1897
„ 1 & 3, Highbury Street, Portsmouth	„ 15th „
„ 1, Mary Street, Fratton ...	April 20th „
„ 1, 2, 3, 4, 5, 6 & 7, Alfred Buildings	„ 20th „
„ 16 & 18, Marylebone Street ...	„ 20th „
„ 14, Taylor's Court	June 15th „
„ 1 & 2, Waterman's Alley ...	„ 15th „
„ 9, White's Row	July 20th „
„ 72, Highbury Street	„ 20th „
„ 7, 9 & 11, West Street	„ 20th „
„ 9, Paradise Street	„ 20th „
„ 4, Hobb's Court	Aug. 17th „
„ 7 & 8, King's Bench Alley ...	„ 17th „
„ 9, Southampton Row	Sept. 21st „
„ 30 & 32, Hertford Street ...	„ 21st „
„ 51, 53 & 55, Albion Street ...	Nov. 16th „
„ 239 & 341, Somers Road ...	„ 16th „
„ 43, 45 & 47, Arnaud Street ...	„ 30th „
„ 42, Hawke Street	Dec. 21st „

PROSECUTIONS.—Twenty-two prosecutions have been instituted under the Public Health Act, and evidence given by me where necessary. The following is the result of the prosecutions :—

Initials.	Charge.	Result of Prosecution.
T.K.	Non-compliance with Nuisance Notice.	Order to abate nuisance in 14 days, and fined 1s. and 8s. costs.
G.H.	Do.	Withdrawn on costs (8s.) being paid, work being done.
E.M.	Do.	Order to abate nuisance in 14 days, and fined 1s. and 15s. 6d. costs.
P.R.	Do. (2 cases)	Withdrawn, work done.
A.H.B.	Do.	Order to abate nuisance in 14 days, and fined 1s. and 14s. 6d. costs.
G.S.	Do.	Order to abate nuisance in 14 days, and fined 1s. and 8s. costs.
E.M.	Do. (2 cases)	Order to abate nuisance in 14 days, and fined 15s. including costs (in each case).
E.J.	Do. (2 cases)	Order to abate nuisance in 14 days, and fined 1s. and 16s. 6d. costs (in each case).
C.W.P.	Do. (2 cases)	Order to abate nuisance in 14 days, and fined £1 including costs (in each case).
A.H.	Do.	Order to abate nuisance in 14 days, and fined 15s. including costs.
C.T.	Do.	Order to abate nuisance in 14 days, and fined 15s. including costs.
E.E.	Do.	Order to abate nuisance in 14 days, and fined 10s. including costs.
V.R.	Do.	Order to abate nuisance in 14 days, and fined 15s. including costs.
G.H.	Do.	Order to abate nuisance in 14 days, and fined £1 including costs.
C.S.	Do.	Withdrawn, work done.
J.S.	Do.	Order to abate nuisance in 21 days, and fined £1 including costs.
W.H.M.	Do.	Order to abate nuisance in 14 days, and fined £1 including costs.
J.H.	Do.	Order to abate nuisance in 14 days, and fined £1 including costs.

SLAUGHTER HOUSES—There are at present 111 permanent and 3 yearly licenses granted for slaughter houses in the Borough. As much supervision as possible has been exercised to enforce their cleanliness and the inspection of the meat therein, but it must be confessed that the inspection is most inadequate, nor can it be much improved under the existing circumstances. The only method by which the slaughtering and inspection of animals for food can be efficiently supervised is by the erection of a public slaughter house and the abolition of all existing private slaughter houses. Up to the present the enormous cost of closing and giving compensation for 111 private slaughter houses has prevented the establishment of an abattoir in this town. Early this year (1898), however, the Royal Commissioners on the Prevention of Tuberculosis issued their report in which they made the following recommendations -—

"1. We recommend that in all towns and municipal boroughs in England and Wales, and in Ireland, powers be conferred on the authorities similar to those conferred on Scottish corporations and municipalities by the Burgh Police (Scotland) Act, 1892, viz :—

(a) When the local authority in any town or urban district in England and Wales and Ireland have provided a public slaughter house, power be conferred on them to declare that no other place within the town or borough shall be used for slaughtering, except that a period of three years be allowed to the owners of existing registered private slaughter houses to apply their premises to other purposes. The term of three years to date, in those places where adequate public slaughter houses already exist, from the public announcement by the local authority that the use of such public

slaughter houses is obligatory, or, in those places where public slaughter houses have not been erected, from the public annoucement by the local authority that tenders for their erection have been accepted.

(b) That local authorities be empowered to require all meat slaughtered elsewhere than in a public slaughter-house, and brought into the district for sale, to be taken to a place or places where such meat may be inspected ; and that local authorities be empowered to make a charge to cover the reasonable expenses attendant on such inspection.

(c) That when a public slaughter house has been established, inspectors shall be engaged to inspect all animals immediately after slaughter, and stamp the joints of all carcases passed as sound."

Should Parliament therefore act on these recommendations and give the requisite powers to local authorities, it will be seen that the present obstacles in the way of an abattoir will be done away with, and doubtless the Sanitary Authority will then exert its powers and replace the various old-fashioned and insanitary private slaughter houses by a modern, up-to-date, sanitary abattoir.

INSPECTION OF WORKSHOPS has been systematically carried out by Inspector Benjamin.

COWSHEDS, DAIRIES, AND MILKSHOPS. There are 225 milkshops, cowsheds and dairies in the Borough, of which 48 are cowsheds. These have been inspected regularly and active steps have been taken for the improvement of some of the sheds. Unless cows are kept in healthy sheds the milk they yield will not be wholesome. The commonest disease

from which milch cows suffer is Tuberculosis, in advanced cases of which Tubercle Bacilli may be found in the milk, and in fact have been found in Liverpool in 30 per cent. of the milks examined. The effect on children of drinking such milk is Diarrhœa, Tubercular bowels, Scrofula, &c. For the protection of milk supplies the Royal Commissioners on the Prevention of Tuberculosis, make, amongst others, the following recommendations:—

"That in future no cowshed, byre, or shippon, other than those already registered, shall be permitted or registered, in urban districts within 100 feet of any dwelling house, and that the discontinuance of any one already existing shall be ordered on the certificate, either of the Medical Officer of Health that it is injurious to the health of human beings residing near it, or of the veterinary inspector that it is not a place wherein cows ought to be kept for the purpose of milk supply, and that it is incapable of being made so.

That the conditions of the attached cowsheds that shall warrant the registering of a dairy in a populous place, whether technically urban or rural, in the future shall include the following :—

1. An impervious floor.

2. A sufficient water supply for flushing.

3. Proper drainage.

4. A depôt for the manure at a sufficient distance from the byres.

5. A minimum cubic contents as regards such districts of from 600 to 800 feet for each adult beast varying according to the average weight of the animals.

6. A minimum floor space of 50 feet to each adult beast.

7. Sufficient light and ventilation.

While we have prescribed a minimum cubic contents and floor space without mentioning definite dimensions affecting ventilation and lighting, we are distinctly of opinion that these are by far the most important, and that requirements as to cubic and floor space are mainly of value as tending to facilitate adequate movement of air.

Existing cowsheds should be obliged to conform to the prescribed regulations within a period of twelve months from the time of the regulations coming into force.

We recommend that where cows housed in one district supply milk to another district, the local authority of the district in which the cows are housed shall be bound, when required, to supply to the local authority of the district in which the milk is sold or consumed full information and veterinary reports regarding the condition of the cows, byres, &c., whence the milk is drawn. Where the local authority of one district are dissatisfied with the reports so obtained, they may apply to the Local Government Board, with a view to an independent inspection and report being made."

There is also a recommendation for the provision of *Tuberculin* gratuitously, to enable stock owners to test their cattle for tuberculosis. All these recommendations are well worth attending to, and it is to be hoped that Parliament will act upon them at an early date. At the present time, the steps taken for safe-guarding our milk supplies are not sufficient, and when one calls to mind the large number of outbreaks of disease that are caused by milk, and the fact that milk alone is the chief food of children and invalids, it is at once apparent

that no means should be neglected to preserve it as free as possible from contamination.

HOUSE REFUSE DISPOSAL.—In my last annual report, I expressed a hope—which had frequently been expressed by my predecessor in this office—that a more scientific method of refuse disposal might be adopted than "dumping down." This hope is still without realization, and apparently any prospect of realization. The only argument that can be urged in favour of the existing arrangement is, perhaps, its antiquity. The present primitive system has been in operation in Portsmouth from the earliest times, and as far back as 1694 we read in the Portsmouth Records that—

"April, 1694.

"We p^{r}sent Mr. John Blakeley and Mr. Mayor that "they and each of them doe remove the several heaps of "rubbige before the Swan, and the Orange tree att or before "the 5th day of June next ensueing on paine for each of them "to lose.....vj$^{s.}$ viij$^{d.}$"

So that for the last 200 years, refuse has been got rid of by depositing in the neighbourhood of houses; during that time it has been apparently the source of recurring nuisance. Now-a-days, however, we do not fine the Mayor.

Year by year the town is increasing in size, and year by year the amount of refuse is increasing, and the nuisance of the rubbish heaps getting more and more intolerable. If we are to maintain our very high place amongst health resorts, these rubbish heaps, which offend against all the canons of sanitation, must be abolished, and it seems to me that the most satisfactory method of dealing with the refuse is by means of a destructor.

The destroying of refuse in a destructor will naturally be

rather more expensive than the present system, but it has been shown by Mr. Murch, the Borough Engineer, in his special report on the matter, issued in June of last year, that half the refuse of the town can be dealt with in a destructor at Eastney at an inclusive cost of £807 8s. 0d. per annum. This amount, however, is small in comparison with the nuisance and annoyance caused to the unfortunate people who reside in the neighbourhood of the rubbish heaps. This matter of refuse disposal is one which, I respectfully submit, calls for immediate and serious attention.

HOUSE DRAINAGE AND THE BUILDING BYE-LAWS.—In March I presented to you a special report calling attention to the unsatisfactory state of affairs as regards house drainage. I pointed out that although the Health Department was responsible for the drainage and sanitary arrangements of every inhabited house, yet a new house was erected, the drainage completed, and all the sanitary fittings and arrangements made without the Health Department being consulted in any way. Directly however this new house was inhabited, the whole onus and responsibility for its being in a sanitary state was immediately transferred to the Health Department. Acting on my suggestions you decided that in future the drains and sanitary fittings of new houses should, before occupation, be tested by that department which was responsible for them when the house became inhabited, i.e., the Health Department, and for this work Inspector Turner was appointed. Now for this new method of procedure to be efficient, it was necessary to prevent any new house being occupied until it was certified by the Health Department to be fit for occupation, to effect which, recourse was had to Sec. 24 of the Portsmouth Corp. Act, 1883, which enacts that—"No new house shall be occupied until certified by the Medical Officer of Health and Borough Engineer to be in every respect fit for occupation." Jt was soon found, however, that it was impracticable to issue such a certificate, for the Borough Engineer refused, and rightly

refused, to certify that any house built under our existing bye-laws was necessarily fit for occupation. And thus, owing to our defective building bye-laws, the good results expected to ensue from your labours at the beginning of the year, in regard to the improvement of house drainage, have practically become null and void. Surely it is impossible to adduce stronger evidence for the necessity of new building bye-laws than this—that a house can be built in strict accordance with the Borough of Portsmouth Building Bye-laws and yet be actually unfit to live in! It is sincerely to be hoped that the end of 1898 may see such a discreditable state of affairs remedied, and the present obsolete and inefficient Building Bye-laws of 1869 replaced by ones more modern, that will at least guarantee to us the primary essentials of a healthy home.

Systematic Inspection of the Borough—

This has been energetically carried out by your Inspectors, and particulars of the various nuisances attended to will be found in the Chief Inspector's report. Particular attention is being paid to house drainage; every house where a case of infectious disease occurs is thoroughly examined and notices served for any defects that are found. All repairs to house drainage are now tested by water where possible. The ventilation of house drains has also received special attention; I still receive a number of complaints with regard to the smells from the road sewer ventilators, I think it very probable that typhoid fever is often caused among children by playing about in the road near these. When complaint has been made, where possible a ventilating shaft has been substituted for the road ventilator, and the latter closed. Unfortunately the shafts are rather unsightly, and owners of property object to having them erected against their houses. It would be doubtless advantageous to erect more ornate shafts, with weather vane on top, or to in some way disguise their appearance, so that their real character is not so ostentatiously apparent.

Inspection of "slum" property has been very vigorously prosecuted, and a marked improvement may be noticed in their condition. On page 46 will be found particulars as to the number of houses which have been closed as unfit for human habitation, in addition to which a number of letters have been written to owners of property, warning them that unless their houses were at once thoroughly cleansed and repaired, they would be reported to the Authority with a recommendation for their closure as unfit for human habitation.

TABLE XXV.

Table of Deaths during the Year 1897, in the Portsmouth Urban Sanitary District, classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities	Mortality from all Causes, at Subjoined Ages								Mortality from Subjoined Causes, distinguishing Deaths of Children under Five Years of Age																		
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
													Fevers																	
	At all Ages	Under 1 Year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Small Pox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	Measles	Whooping Cough	Diarrhœa and Dysentery	Rheumatic Fever	Phthisis	Bronchitis, Pneumonia and Pleurisy	Heart Disease	Influenza	Injuries	All other Diseases	Total
Portsmouth ..	70	13	13	7	6	21	10	*Under 5*	..	..	..	..	..	..	..	..	..	..	..	2	4	1	..	1	5	..	..	..	13	26
								5 upwds	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	8	2	2	..	4	27	44
Portsea ..	161	32	23	2	8	59	37	*Under 5*	..	..	..	..	..	..	..	..	..	..	..	2	5	11	..	2	3	..	..	..	32	55
								5 upwds	..	..	1	..	..	..	..	..	..	..	..	4	1	2	..	17	14	18	..	3	46	106
Kingston ..	985	360	123	54	40	260	148	*Under 5*	..	..	2	8	..	6	..	..	..	..	1	3	29	131	1	8	70	..	2	10	212	483
								5 upwds	..	..	9	1	..	13	1	..	2	..	2	7	..	11	..	65	81	76	4	16	214	502
Landport ..	1052	360	113	33	49	272	225	*Under 5*	..	..	2	..	..	1	..	..	..	..	1	13	18	113	..	2	60	..	..	9	254	473
								5 upwds	..	2	2	..	..	8	..	..	6	..	..	1	..	9	5	68	82	83	6	7	300	579
Southsea ..	186	11	3	5	5	80	82	*Under 5*	..	..	..	1	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	9	14
								5 upwds	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	8	..	24	..	12	125	172
Naval & Military Barracks, Ships in Harbour, &c.	50	13	11	4	5	16	1	*Under 5*	..	..	1	..	..	..	..	..	..	..	..	1	4	..	..	..	7	..	..	1	9	23
								5 upwds	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	4	3	..	6	11	27
Infectious Diseases Hospital	26	10	12	1	2	1	..	*Under 5*	..	6	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	8
								5 upwds	..	3	2	..	..	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	18
Portsea Island Union	268	17	3	3	14	90	141	*Under 5*	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	5	..	..	..	11	20
								5 upwds	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	44	8	27	3	2	161	248
Borough Asylum ..	84	..	..	3	3	51	27	*Under 5*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
								5 upwds	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	5	18	..	..	45	83
Portsmouth and Gosport Hospital	85	4	13	3	9	38	18	*Under 5*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	12	17
								5 upwds	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	5	1	2	1	10	47	68
Nazareth Home ..	7	..	1	1	1	..	4	*Under 5*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
								5 upwds	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	..	..	..	6

TABLE XXVI.

Table of Population, Births, and of New Cases of Infectious Sickness, coming to the knowledge of the Medical Officer of Health, during the year 1897, in the Portsmouth Urban Sanitary District; classified according to Diseases, Ages and Localities.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities	Population at all Ages: Estimated to middle of 1897	Registered Births	Aged under 5 or over 5	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health												Number of such Cases Removed from their Homes in the several Localities for treatment in Isolation Hospital											
				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	13
								Fevers												Fevers								
				Small Pox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	Measles	Small Pox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	Measles	Other Diseases
Portsmouth .	6839	..	*Under 5*	..	1	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
			5 upwards	..	4	..	..	..	6	..	..	..	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..
Portsea ..	14989	..	*Under 5*	..	5	5	..	..	1	..	..	..	..	..	..	4	..	..	..	1	..	..	..	..	..	..	..	..
			5 upwards	..	26	5	..	..	23	3	..	..	..	..	..	10	1	..	..	8	..	..	..	..	..	..	..	..
Kingston ..	70279	..	*Under 5*	..	81	9	..	..	33	5	..	..	..	..	..	48	1	..	..	7	..	..	..	..	..	2	..
			5 upwards	..	214	56	..	..	138	26	..	9	..	..	..	124	13	..	..	46	..	..	1	..	..	1	1
Landport ..	72978	..	*Under 5*	..	85	15	..	..	9	5	..	..	..	..	..	41	6	..	..	3	..	..	..	..	..	..	..
			5 upwards	..	230	50	..	..	97	17	..	9	..	..	..	144	15	..	..	32	..	..	..	..	..	1	..
Southsea ..	17500	..	*Under 5*	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			5 upwards	..	26	4	..	..	9	8	..	1	..	..	..	10	..	..	..	3	..	..	1	..	..	2	1
Royal Hospital ..	..	..	*Under 5*	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..
			5 upwards	..	1	..	..	..	1	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..
Infectious Diseases Hospital	..	..	*Under 5*	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			5 upwards	..	1	..	..	..	1	..	..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..
Naval and Military Establishments	..	..	*Under 5*	..	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
			5 upwards	..	4	1	..	..	..	..	..	1	..	..	3	..	2	..	..	..	..	..	..	..	..	..	..	..
Portsea Island Union	..	..	*Under 5*	..	..	1	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
			5 upwards	..	15	..	..	..	1	..	..	..	..	..	..	17	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	182585	..	*Under 5*	..	177	32	..	..	44	10	..	..	..	..	2	..	98	8	..	..	11	..	..	..	..	..	2	..
			5 upwards	..	521	116	..	..	276	54	..	20	..	..	3	..	315	29	..	..	91	..	..	2	..	..	4	2

Port Sanitary Authority.

GENTLEMEN,

During the year, 8,537 vessels have arrived at this port; they have been boarded and inspected by Mr. Meades, the Port Sanitary Inspector, and some of the vessels have been seen by me.

6,225 arrived from the Solent; 1,922 British vessels coastwise; 390 British vessels from foreign ports.

The nationalities of the foreign vessels entering the port were as follows:—

French	...	15	Dutch	...	7
German	...	12	Swedish	...	11
Norwegian	...	34	American	...	1
Russian	...	6	Belgian	...	1
Danish	...	13			

No case of infectious disease occurred on board any of these ships.

I am, Gentlemen,

Your obedient servant,

A. MEARNS FRASER,

Medical Officer of Health to the Port Sanitary Authority.

Report of the Chief Inspector of Nuisances

FOR THE YEAR 1897.

NOTICES SERVED.

To Cleanse	Cesspits	- -	17
,,	Drains	- -	308
,,	Cellars	- -	5
,,	Slaughterhouses	- -	19
,,	Dwellinghouses	- -	213
,,	Yards, Stables, Sties, &c.	-	67
,,	Courts	- -	18
,,	Water Closets	- -	92
,,	Bakehouses	- -	33
,,	Urinal	- -	1
,,	Rain Water Tank	- -	1
,,	,, Spouting	- -	3
,,	Common Lodging Houses	-	3
,,	Workshops	- -	64
,,	Laundries	- -	11
To Remove	Manure	- -	75
,,	Animals	- -	10
,,	Refuse	- -	71
,,	Rags, Bones and Fat	- -	6
,,	Stagnant Water	- -	6
,,	Carcase of Dog	- -	1
,,	Offal	- -	2
To Repair	Water Closet Fittings	- -	81
,,	Water Closets	- -	6
,,	Drains	- -	476
,,	Cesspools	- -	2
,,	Rain Water Spouts	- -	119
,,	Cellar Covering	- -	1

To Repair	Dwellinghouses - -	104
,,	Soil Pipes - -	6
,,	Urinals - -	4
,,	Sanitary Defects in Dwellinghouses -	1915
,,	,, ,, Workshops -	67
,,	,, ,, Cowsheds -	7
To Construct	Water Closets - -	7
,,	Ash Pits - -	2
,,	Urinal - -	1
To Provide	Spouting - -	13
,,	New Water Closet Pans -	6
,,	Smoke Consuming Apparatus -	5
To Ventilate	Workshops - -	3
,,	Drains - -	31
To Raise or Repair Ventilating Shafts -		47
To Lay on Water to Water Closet - -		1
To Lay on Water for Domestic Use - -		3
To Connect Premises with Main Sewer -		5
To Repave Yards, Stables, Sties, &c. -		384
To Disconnect Rain Water Pipes from Drain -		2
To Drain Stables - - -		8
To Drain Manure Pit - - -		1
To Discontinue Overcrowding in Dwellinghouses -		24
,, ,, Workshops -		56
To Comply with Slaughterhouse Bye-laws -		12
,, ,, Nuisance ,, -		25
,, ,, Dairies, Cowsheds and Milkshops Regulations - -		5
To Ventilate Basements of Houses -		2
To Comply with Common Lodging House Bye-laws		3
	Total	4460

NUISANCES REMOVED.

Cesspits - -	Cleansed -	25
Drains - -	,, -	388
Cellars - -	,, -	6

Slaughterhouses	-	Cleansed	-	20
Dwellinghouses	-	,,	-	212
Yards, Stables, Sties, &c.	-	,,	-	70
Water Closets -	-	,,	-	71
Bakehouses -	-	,,	-	35
Rain Water Tank	-	,,	-	1
Courts -	-	,,	-	33
Spouting -	-	,,	-	12
Workshops -	-	,,	-	58
Laundries -	-	,,	-	8
Common Lodging Houses	-	,,	-	4
Manure -	-	Removed	-	62
Animals -	-	,,	-	11
Carcase of Dog -	-	,,	-	1
Refuse -	-	,,	-	76
Soil Pipes -	-	,,	-	5
Rags, Bones and Fat	-	,,	-	5
Stagnant Water	-	,,	-	6
Offal -	-	,,	-	1
Water Closet Fittings	-	Repaired	-	75
Water Closets -	-	,,	-	9
Drains -	-	,,	-	606
Rain Water Spouts	-	,,	-	111
Cellar Covering	-	,,	-	1
Dwellinghouses	-	,,	-	125
Soil Pipes -	-	,,	-	8
Cesspool -	-	,,	-	1
Urinals -	-	,,	-	2
Sanitary Defects in Dwellinghouses			-	1849
,, ,, Workshops	-		-	62
,, ,, Dairies, Cowsheds, &c.			-	4
Water Closets -	-	Constructed	-	3
Ash Pit -	-	,,	-	1
Spouting -	-	Provided	-	15
New Water Closet Pans	-	,,	-	10
Smoke Nuisances	-	Abated	-	4
Drains -	-	Ventilated	-	154

Work-shops	- Ventilated	- 1
Ventilating Shafts Repaired or Raised		- 42
Water laid on to Water Closets	-	- 1
,, for Domestic Use	-	- 6
Premises connected with Main Sewer		- 5
Basement of House Concreted	-	- 1
Yards, Stables, Sties, &c., Repaved	-	- 452
Rain Water Pipes Disconnected from Drains		- 2
Stables Drained -	-	- 2
Overcrowding in Dwellinghouses Discontinued		- 29
,, Workshops	,,	- 57
Slaughterhouse	Bye-laws Complied with	11
Nuisance	,, ,,	19
Common Lodging Houses	,, ,,	3
Dairies, Cowsheds and Milkshops	,, ,,	3
Waste Pipes Disconnected from Soil Pipes		- 3
Basements of Houses Ventilated -		- 2
	Total	4789

The following Articles of Food have been either seized by the Inspector, or given up by the owners for the purpose of destruction, as unfit for the Food of Man, viz.:—

Carcases of Beef - -	- 4
,, Sheep - -	- 5
,, Pigs - -	- 11
Pieces of Beef - -	- lbs. 326
Colonial Beef - -	- qr. 1
Pieces of Pork - -	- cwts. $4\frac{1}{2}$
Chitterlings - -	- cwt. 1
Pork Chimes - -	- ,, 1
Wild Rabbits - -	- 50
Bloaters - -	Boxes 163
Kippers - -	- ,, 7
Mackerel - -	- ,, 61
Do. - -	- Barrel 1

Haddock - -	Boxes 191
Do. - -	- Barrel 1
Herrings - -	Boxes of 500, 5
Soles - -	- Boxes 4
Do. - -	- Barrel 1
Hake - -	- 12
Whitebait - -	- Box 1
Mixed Fish - -	- Boxes 20
Do. - -	- Kit 1
Crabs - -	- Barrel 1
Plaice - -	- Stone 11
Shrimps - -	- Box 1
Smelts - -	- Boxes 12
Whiting - -	- Stone 70
Do. - -	- Box 1
Do. - -	- Barrels 3
Mullet - -	- Boxes 2
Gurnet - -	- Barrels 3
Dog Fish - -	- Boxes 15
Cockles - -	- Bags 4
Winkles - -	Gallons $2\frac{1}{2}$
Apples - -	- Barrels 7
Oranges - -	- Box 1

INSPECTION.

During the year, 4,460 Notices were served to abate Nuisances, and 4,789 Nuisances were removed.

7,365 Dwellinghouses were inspected.

4,817 Slaughterhouse visits have been made.

1,722 visits have been made to the various Dairies, Cowsheds, and Milkshops.

879 visits have been made to the Common Lodging Houses.

1,826 visits have been made to the different Bakehouses.

4,573 visits were made by the Workshop and Shop Hours Inspector to the various Workshops in the district.

947 Complaints have been made at the Office, and received attention.

INFECTIOUS DISEASES.

During the year, 1,821 cases of Infectious and Zymotic Diseases were visited and investigated.

1,074 Rooms were disinfected by the Disinfector.

FOOD AND DRUGS ACTS.

Under the provisions of these Acts, your Inspectors have obtained 193 samples of Food, Drink and Drugs, and submitted them to the Public Analyst for analysis.

DRAINAGE.

During the year, 4,910 suspected drains of old houses were tested, and 2,149, or 43·76 per cent. were found to be defective.

This branch of our work has occupied considerable time, as in the majority of cases the drains, after repair, have been made to stand the "water test." I am glad to be able to say that property owners generally are becoming aware of the necessity of having watertight drains; and when defects have been found to exist in the drainage of their houses, are anxious to have the work carried out in a more proper and thorough manner than hitherto.

GIPSY ENCAMPMENTS.

In consequence of the many complaints received from Eastney and the neighbourhood, of the nuisances from the

Gipsy Encampments, the Authority allowed me to be appointed honorary agent for the lands on which the gipsies settled, with a view of removing them from the lands.

Since my appointment, I have removed them by persuasion on sixteen occasions, and only in four instances have I been compelled to use force, and draw their vans from the ground. I beg to tender my thanks to the Chief Constable and to Superintendent Prickett for their assistance in the matter in allowing police to be present on the occasions when it became necessary for me to use force to evict them from the lands.

I also ordered the removal of a band of Greek refugees, who settled on land off Albert Road, and who were in a filthy condition.

PROSECUTIONS AND FINES.

Public Health Act, 1875.

Under the Nuisance Clauses of this Act, proceedings were instituted in twenty-two cases for non-compliance with Legal Notices to abate Nuisances.

In eighteen cases, orders were made by the Magistrates for the necessary work to be carried out, and Fines and Cases amounting to £14 18s. 0d. inflicted; and in four cases the informations were withdrawn on the work being carried out to the satisfaction of the Authority.

Six informations were laid against persons for exposing and having deposited on their premises meat either diseased or unsound, and unfit for the food of man, with the following results, viz.:—

		£	s.	d.
Exposing for sale 7 pieces of diseased meat	Fined	7	0	0
	Costs	0	11	6
For depositing for the purpose of sale 9 pieces of diseased meat	Fined	9	0	0
	Costs	0	11	6
Exposing for sale 8 pieces of meat unfit for food	Fined	4	0	0
	Costs	1	2	0
For depositing for the purpose of sale 20 pieces of meat unfit for food	Fined	4	0	0
	Costs	0	12	6
Exposing for sale 6 pieces of diseased meat	Fined	6	0	0
	Costs	0	11	0
For depositing for the purpose of sale 5 pieces of diseased meat	Fined	5	0	0
	Costs	0	11	0
	Total	£39	19	6

Food and Drugs' Acts:—

Under these Acts, proceedings have been taken against twenty-six persons for selling to your Inspectors adulterated articles. Convictions were obtained in twenty-two cases, and Fines and Costs amounting to £31 9s. 6d. imposed.

In two cases the informations were withdrawn on account of the bottles containing the third parts having burst in the office, and one case was withdrawn, the defendant, who was in a very small way of business, promising to discontinue the trade of purveyor of milk.

Towns Improvement Clauses Act, 1847.

Under this Act, one person was summoned for slaughtering on premises which had not been licensed as a slaughterhouse, and was convicted and fined £2, including costs.

I have the honour to be, Gentlemen,

Your obedient servant,

FRED L. BELL,

Chief Inspector of Nuisances.

The Diseases of Animals' Acts,

1894 to 1896.

INSPECTOR'S REPORT

FOR THE YEAR ENDING 31st DECEMBER, 1897.

INSPECTION OF CATTLE.

The following is a list of animals which have been imported into the town during the year, the greater number arrived at the Portsmouth Town Railway Station from various markets in the vicinity, viz. :—

Beasts	...	...	7,964
Sheep	...	...	55,446
Calves	...	....	5,218
Pigs	...	...	21,625
		Total	90,253

INSPECTION OF CATTLE TRUCKS, &c.—2,474 cattle trucks, 1,239 horse boxes, and 361 tow boats have been inspected, and under supervision, thoroughly cleansed and limewashed in accordance with the requirements of the Act.

SWINE FEVER.—Seven outbreaks of this disease have occurred during the year, necessitating the destruction of 19 infected swine, and 203 swine which had been exposed to infection. A sum of £333 6s. 0d. has been paid to the owners as compensation for the same by the Board of Agriculture.

I regret to report an increased number of outbreaks this year. I am fully of the opinion that insufficient care in the selection of food for swine is one of the chief causes of this increase. It has been my experience that where swine have

been fed upon barrack, ship, and shop refuse, &c., they have been particularly susceptible to this disease. In my opinion the refuse which has accumulated for weeks and become very fermented, then given to swine without either being washed or boiled, is a factor in producing irritation of the viscera, thus aiding the development of the disease.

Licenses issued as required by orders of Board of Agriculture for the year 1897. In accordance with the Board's orders I have issued 450 licenses, licensing into the borough 21,625 pigs.

RABIES.—Under the Dogs' Act put in force in the Borough, the following number of dogs have been seized between 31st December, 1896, and 1st January, 1898, and dealt with as shown, viz. :—

DOGS' ACT.

No. of Dogs seized.	No. Destroyed.	No. Restored to Owners.	No. Sold.	No. Escaped.
378	288	49	39	2

UNDER THE MUZZLING ORDER.

261	172	73	14	2

Whilst a number of cases of dogs suffering from supposed Rabies have been reported to me by the police, upon post-mortem examination made by Veterinary Surgeon F. E. Knott, he could find no trace of Rabies ; distemper and teething being the ailments from which the dogs suffered.

IMPORTATION OF DOGS ORDER OF 1897.

This came into force on 15th September, 1897, and regulates the landing in Great Britain of dogs brought from any other country, except Ireland and the Isle of Man.

Under this order ten dogs have been licensed into this borough from foreign countries, and remained under supervision from 52 to 104 days. The order has been carried out by Inspector Turner, and infringements were duly reported to the Board of Agriculture.

PROSECUTIONS.—Proceedings were instituted against two offenders for infringements of the Act, and fines amounting to £7 7s. 6d. inflicted.

I should like to take this opportunity of thanking the Chief Constable, the Superintendent of Police, and staff for the valuable assistance and courtesy rendered me in connection with the supervision required by the various orders.

I am, Gentlemen,

Your obedient servant,

G. W. MONKCOM,

Inspector under the Diseases (Animals') Act.

Report of the Public Analyst

FOR THE

Year ending December 31st, 1897.

J. MOORE MURRAY, M.Sc., F.C.S.,

Associate of the Owens College,

Public Analyst.

Town Hall, Portsmouth,

January 31st, 1898.

Report of the Public Analyst

For the Year ending December 31st, 1897.

To the Chairman and Members of the Finance Committee.

GENTLEMEN,

I have the honour to present you my report for the year ending December 31st, 1897.

During the year, 202 samples of foods and drugs were submitted to me for analysis, of which number 194 were taken by your Inspectors. The population of Portsmouth, as estimated by the Registrar General in 1897, was 182,585, hence the number of samples of all kinds examined during the year was equivalent to one for every 903 persons.

The returns issued by the Local Government Board for 1895-96 show that the number of samples examined throughout England and Wales was equivalent to one for every 661 of the population, whilst in London one sample was examined for every 414 persons, moreover, where the Act has been rigorously enforced, the percentage of adulteration has steadily diminished. In 1895-96, 4,400 more samples were taken in England and Wales than in 1894-95, and the percentage of adulteration fell from 10·3 to 9·3 the lowest percentage since the passing of the Act in 1875.

The following table shows the number and kind of samples examined during the last ten years, in Portsmouth.

Year	Total	Milk	Butter	Bread and Flour	Groceries	Wines and Spirits	Drugs	Sundries	Number of Samples found Adulterated
1888	200	106	42	...	34	9	...	9	17
1889	206	102	11	5	64	22	...	1	35
1890	187	121	25	1	33	7	...	...	16
1891	206	110	11	11	48	25	...	1	40
1892	203	124	24	6	24	18	...	7	30
1893	218	141	9	10	12	14	...	32	31
1894	238	126	28	1	18	20	10	35	27
1895	257	165	33	3	30	18	8	...	38
1896	168	84	18	...	28	22	6	10	33
1897	202	101	32	...	47	6	12	4	42

The following table shows the number of samples examined, the number and percentage adulterated, in 1896 and 1897 in Portsmouth and in 1895-96 in England and Wales.

	Samples Examined	Samples Adulterated	Percentage Adulteration
PORTSMOUTH, 1896 ...	167	33	19·76
„ 1897	202	42	20·79
England and Wales, 1895-96 ...	43,962	4,093	9·3

Thus it will be seen that whilst the number of samples

examined in Portsmouth has increased 17 per cent., the percentage of adulteration has also risen one per cent., whereas in England and Wales the percentage of increase in the number of samples examined was 10 and the decrease in the percentage of adulteration was one.

MILK.—Table showing the number of samples examined, the number of inferior quality, of adulterated, and the percentage of adulteration.

	Year	Samples Examined	Inferior Quality	Adulterated	Percentage Adulterated
PORTSMOUTH ...	1896	84	7	20	23·8
,,	1897	101	8	31	32·6
England and Wales	1895-6	18,307	400	2,030	11·1

The samples included under the heading "Inferior Quality" were all just upon the standard fixed by the Somerset House Authorities, but that does not admit of the conclusion that they were genuine milks of poor quality, as the results of analysis generally point to adulteration either by abstraction of cream or addition of "separated milk" to a milk of excellent quality.

From the table it will be seen that the proportion of adulterated samples has increased over 9 per cent., and when compared with the rest of the country the amount of adulteration is certainly very unfavourable. In the Metropolis in 1895 the proportion of adulterated samples was as high as 19·3 as against 6·6 per cent in the thirty-two great towns of England included in the Registrar General's weekly returns.

The practice of feeding young children on cow's milk is

becoming more prevalent. It is to be regretted that the greater portion of the adulterated milk is purchased by the poorer people among whom the custom of "bottle feeding" has increased. It is the practice of medical men to recommend the dilution of cows milk before being given to young children, and it is evident that an already diluted milk when further diluted cannot be the best food. The Medical Officer of Health has recently pointed out the necessity for a pure and wholesome milk supply, and how far the death rate among young children is influenced by an indifferent milk supply is not for me to say, but it is certain that the health of a child would be seriously threatened if fed on some of the milk I have examined.

If each sample of milk examined represents ten gallons of milk sold in the town, it follows from the results that out of 1010 gallons no less than 329 gallons were adulterated. It would not be correct, however, to say that out of the 1,500,000 gallons of milk sold in Portsmouth last year 489,600 gallons were adulterated, for there are many honest milk dealers who, besides being bigger ratepayers, are unfortunately brought into unfair competition with those dealers who systematically swindle the purchaser.

Before there is any improvement in the quality of the milk it will necessary for greater penalties to be inflicted. Your inspectors take every care in acting to the letter of the Act and only those cases are taken to court where there is every prospect of a conviction, but the fines inflicted are so small that a dishonest tradesman can, in a few days, by carrying on the practice of adulteration, pay them without any great inconvenience to himself. The standard of quality is notoriously low, yet on page 12 you will see that in case No. 7 more than half the fat had been abstracted, or the milk when genuine had been adulterated with its own bulk of "separated

milk." In this way the vendor made enormous profits and by continuing the adulteration would in a very short time have made more than the twenty-seven shillings fine inflicted.

BUTTER.—Table showing the number of samples examined, the number and percentage adulterated.

	Year	Samples Examined	Samples Adulterated	Percentage Adulteration
PORTSMOUTH	1896	18	2	11·1
„	1897	32	3	9·37
England & Wales	1895-6	7,186	590	8·2

From this table it will be seen that an increase in the number of samples examined has been accompanied by a decrease in the percentage adulterated, which latter is only one above the average for England and Wales. The low percentage is probably due to the efficient working of the Margarine Act, as all the genuine samples, except one were of good quality.

COFFEE.—Of the seventeen samples of coffee examined only one was found to be adulterated. This gives a percentage of 6 which is one less than for 1896, and compares very favourably with the percentage (ten) found adulterated in England and Wales.

SPIRITS.—Table showing the number of samples examined and the number and percentage adulterated.

	Year	Samples Examined	Samples Adulterated	Percentage Adulterated
PORTSMOUTH	1896	22	5	22·7
,,	1897	6	4	66·6
England & Wales	1895-6	4,241	702	16·5

In 1896, five samples, and in 1897, four samples on examination proved to be adulterated, and yet in none of these cases was there a prosecution because a card was exhibited somewhere in the bar where the spirits were purchased stating that all the spirits sold on the premises were adulterated. In 1879 a special Food and Drugs Act (Amendment Act) was passed fixing the standard strength for all spirits, and yet in Portsmouth the majority of the publicans knowing that no prosecutions are instituted, openly evade the act by exhibiting the card. Prosecutions are instituted and convictions obtained in other towns and counties, and, as a consequence, in London the percentage of adulterated spirits falls as low as 10·2. It is manifestly unfair for one trade to be at liberty to put itself beyond the provisions of the Act, and to remedy this it behoves the Council to institute proceedings in these cases of adulteration and if necessary to carry them to a higher court.

SUGAR AND OTHER PROVISIONS.—One sample of sugar out of twenty examined proved to be adulterated. This was a case where white sugar had been artificially dyed to imitate Demerara Sugar, but it is satisfactory to know that there is little of such sugar for sale in Portsmouth. All the samples of pepper and vinegar were found to be genuine. The former of these is now seldom adulterated.

DRUGS.—Of the twelve samples of drugs examined two

or 16·6 per cent were adulterated, the adulteration was only of very small amount. Two of the samples were considerably over weight, and as in these cases (Quinine sulphate) there is no difficulty in weighing, I would suggest that in future cautionary letters be addressed to the vendors. The number of samples of Drugs reported upon in England and Wales in 1895 was 158 or 11 per cent adulterated.

PROSECUTIONS.—From the following table it will be seen that prosecutions were instituted in 24 cases, fines being inflicted in 23. The result of the prosecutions reflects credit upon the chief Inspector, Mr. Bell, and his assistants for the way in which the samples are taken and the informations laid. It appears that in England and Wales prosecutions were instituted in 2,724 cases, fines being imposed in 2,313, the percentage of successful cases being 84 as compared with 95 per cent successful in Portsmouth.

The following table shows the action taken in each case of adulteration and the result (if any) of such action.—

No.	Nature of Sample.	By whom obtained.	Amount of Adulteration.	Result.
1	Milk ...	Inspector.	8 p.c. cream abstracted ...	Fined 10s. and 7s. 6d. costs.
2	Do. ...	Do. ...	32 p.c. do. ...	No prosecution; sold as skimmed.
3	Do. ...	Do. ...	4 p.c. do. ...	No prosecution.
4	Demerara Sugar ...	Do. ...	Contained an artificial dye	Fined 15s. including costs.
5	Milk ...	Do. ...	27 p.c. cream abstracted...	Fined 30s.
6	Do. ...	Do. ...	2 p.c. do. ...	No prosecution.
7	Do. ...	Do. ...	56·4 p.c. do. ...	Fined £1 and 7s. costs.
8	Do. ...	Do. ...	9 p.c. added water ...	Fined £1 and 13s. costs.
9	Do. ...	Do. ...	16 p.c. cream abstracted...	Fined £1 including costs.
10	Do. ...	Do. ...	1·6 p.c. added water ...	No prosecution.
11	Do. ...	Do. ...	9 p.c. cream abstracted, and 9 p.c. added water	Fined £1 including costs.
12	Do. ...	Do. ...	52 p.c. cream abstracted...	Fined £2 and 13s. costs.
13	Do. ...	Do. ...	23 p.c. do. ...	Fined £2 and 7s. 6d. costs.
14	Do. ...	Do. ...	7 p.c. do. ...	Fined 15s. including costs.
15	Do. ...	Do. ...	2 p.c. added water ...	No prosecution.
16	Butter ...	Do. ...	15 p.c. foreign fat ...	Do. Samples mixed by Insp.
17	Do. ...	Do. ...	20 p.c. do. ...	Do. do.
18	Milk ...	Do. ...	38 p.c. cream abstracted...	Fined 30s. including costs.
19	Do. ...	Do. ...	45 p.c. do. ...	Fined £1 and 15s. costs.
20	Do. ...	Do. ...	81 p.c. cream abstracted, and 3 p.c. added water	Fined £1 and 7s. 6d. costs.
21	Do. ...	Do. ...	5 p.c. cream abstracted ...	Fined 7s. 6d. costs.
22	Do. ...	Do. ...	9 p.c. do. ...	Fined 10s. and 8s. 6d. costs.
23	Glycerine	Do. ...	Chlorine specific gravity 1·257	No prosecution.†
24	Do. ...	Do. ...	Ditto, 1·257	Do.†
25	Milk ...	Do. ...	12·73 p.c. cream abstracted and 6·12 p.c. added water	Information withdrawn; bottle burst.
26	Do. ...	Do. ...	38·19 p.c. cream abstracted	Fined £2 and 9s. 6d. costs.
27	Coffee ...	Do. ...	5 p.c. chicory ...	Fined £1 including costs.
28	Milk ...	Do. ...	3·4 p.c. cream abstracted	Taken in course of delivery; no prosecution.*
29	Do. ...	Do. ...	23 p.c. cream abstracted and 7 p.c. added water	Fined £1 and 13s. costs.
30	Do. ...	Do. ...	5 p.c. added water ...	Fined 5s. towards costs.
31	Do. ...	Do. ...	4 p.c. cream abstracted ...	No prosecution.*
32	Do. ...	Do. ...	42 p.c. do. ...	Fined £2 including costs.
33	Do. ...	Do. ...	34·5 p.c. cream abstracted and 6 p.c. added water	Do. do.
34	Do. ...	Do. ...	23·6 cream abstracted ...	Do. do.
35	Butter ...	Do. ...	10 p.c. foreign fat ...	No prosecution.†
36	Whiskey	Do. ...	32° under proof ...	Card in bar.*
37	Rum ...	Do. ...	26° do. ...	No prosecution.*
38	Gin ...	Do. ...	40° do. ...	No prosecution (card).*
39	Whiskey	Do. ...	27° do. ...	No prosecution.*
40	Milk ...	Do. ...	8 p.c. added water ...	Fined 5s. towards costs.
41	Do. ...	Do. ...	5 p.c. cream abstracted ...	No prosecution.*
42	Do. ...	Do. ...	20 p.c. do. ...	Prosecuted; case dismissed.

* Previous prosecutions in similar cases having been dismissed these were not proceeded with.

† No prosecutions on account of the quantity of adulteration being small.

FINES.—The amount of fines ordered to be paid was £25 10s. 0d. in addition to costs amounting to £5 9s. 0d. It follows that the average penalty, including costs, was thus £1 2s. 6d. which is 13s. 3d. below average penalty inflicted in England and Wales in 1895-96. Last year the total penalties inflicted in Portsmouth amounted to £30 19s. 6d., which is the largest sum recovered under the Act during the last ten years, the next highest being in 1894 when the total was £28 9s. 6d. The Act provides for a penalty of £20 and until full advantage of this power is taken by the magistrates prosecutions will not act as a deterrent to unscrupulous tradesmen. As has been already pointed out in many cases the adulteration is so great, that the vendor, by carrying on the process, soon recovers the small penalty inflicted, and it is the purchaser who not only gets an inferior article but really pays the fines. In the report of the Select Committee on Food Products adulteration, page xvi, the following paragraph occurs.

"After careful consideration of the matter your Committee "have come to the conclusion that the punishments which, as a "rule, have been inflicted for offences under the Acts have not "been sufficient to render them effective for the purpose for "which they were designed."

I would therefore venture to suggest that the magistrates be asked to make use of their power in this connection for I am convinced that until greater penalties are enforced there will be little improvement in the food supply of the Borough.

I would remind you that there is a possibility of the Act being amended during the present Session of Parliament and it will be necessary to watch any Bill which may be introduced for this purpose.

I have the honour to be, Gentlemen,
Your obedient servant,

J. MOORE MURRAY.